DOCUMENT RESUME

ED 237 276 RC 014 449

AUTHOR	Young, Malcolm B; And Others
TITLE	The Evaluation of the Impact of the Part A Entitlement Program Funded under Title IV of the Indian Education Act. Final Report.
INSTITUTION	Development Associates, Inc., Arlington, Va.
SPONS AGENCY	Department of Education, Washington, DC. Office of Planning, Budget, and Evaluation.
PUB DATE	29 Jun 83
CONTRACT	300-80-0862
NOTE	455p.; For related documents, see RC 014 450-452. Cover page will reproduce marginally.
PUB TYPE	Reports - Research/Technical (143) -- Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC19 Plus Postage.
DESCRIPTORS	Administrator Attitudes; Alaska Natives; *American Indian Education; American Indians; Community Leaders; Counseling Services; *Cultural Education; Elementary Secondary Education; Federal Indian Relationship; Needs Assessment; Parent Attitudes; *Program Content; Program Design; *Program Effectiveness; *Program Evaluation; Public Schools; Student Attitudes; Tutoring
IDENTIFIERS	*Indian Education Act 1972 Title IV

ABSTRACT

To assist Congress and administrators in the Department of Education to manage Part A of the Indian Education Act and to make decisions with respect to its future, researchers evaluated the operations and effectiveness of the program for meeting the special educational and cultural needs of Indian students. Between 1980 and 1983, researchers gathered and analyzed data from interviews and files of a stratified random sample of 115 Part A projects. The 1981-1982 median project served 119 students with a budget of $26,450, 1.4 professional staff, and active volunteers from the Indian community. Most project offerings correlated highly with educational needs voiced by Indian parents and communities. The most common activities were tutoring and academic services (80%), Indian history and cultural instruction (64%), counseling and career guidance (48%), and home-school liaison activities (38%). Satisfaction with the program was high among parent committees, district administrators, principals, and project directors, but lower among Indian leaders. Program activities improved attendance, math and reading scores, and cultural interest of Indian students, but not school dropout rates. The program also increased Indian parent involvement and interest in the schools. Overall, the small supplemental program had a generally positive effect on Indian education. (SB)

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Indian Education Act, Title IV, Part A

A Project of Development Associates, Inc.
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U.S. Department of Education

1983

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FINAL REPORT

THE EVALUATION OF THE IMPACT OF THE PART A ENTITLEMENT PROGRAM FUNDED UNDER TITLE IV OF THE INDIAN EDUCATION ACT

Contract No. 300-80-0862

Submitted To:

Office of Planning, Budget and Evaluation
U.S. DEPARTMENT OF EDUCATION
Washington, DC 20202

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June 29, 1983

The study reported herein was performed pursuant to a contract with the United States Department of Education. However, the opinions, conclusions, and recommendations expressed do not necessarily reflect the position or policy of the Department of Education, and no official endorsement by the Department of Education should be inferred.

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This report is made pursuant to Contract No. 300-80-0862. The project produced various technical papers, monographs and interim reports which have been submitted to the Education Research Information Clearinghouse (ERIC). This report includes a summary of those materials and a comprehensive description and assessment of the Part A program. The names of the persons employed or retained by Development Associates, Inc., with managerial or professional responsibility for this project and this report are listed below. The amount charged to the U.S. Department of Education for the work resulting in this report (inclusive of the amounts as charged for several related reports also submitted under this contract) is approximately $1,472,418.

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PREFACE

This study was conducted for the Office of Program Evaluation of the Department of Education. Pursuant to a competitive procurement, work began on the study in the fall of 1980, most data were gathered during the fall and spring of the 1981-81 school year, and analyses were performed and the report written during 1982 and the spring of 1983. In commissioning the study, the Office of Program Evaluation sought an analytic description and impact oriented evaluation of the Indian Education Act's Part A Program as implemented in public schools. The purposes of the study were to assist Congress and administrators in the Department to manage the program and make decisions with respect to its future.

From the study's inception, a Technical Advisory Panel of Indian educators provided valuable support. They participated in the study's design, review of data collection forms and procedures, and data analysis plans. Panel members were: Mike Charleston (Oklahoma City, OK), Teresa La Fromboise (Lincoln, NE), Grayson Noley (University Park, PA), Edward Thomas (Ketchikan, AK), Joseph Trimble (Bellingham, WA), and Noah Woods (Maxton, NC). Each of the members of the panel devoted considerable time and attention to the study, which was greatly appreciated.

Development Associates also acknowledges the valuable participation in the study of Bear Chief and Associates of Missoula, Montana. Bear Chief was an important subcontractor throughout the study and was involved in all of its phases. In addition, several other Indian organizations and firms as well as scores of consulting specialists made significant contributions. Mike Charleston, Joseph Trimble, Grayson Noley, Lloyd Elm and Teresa La Framboise made particularly important contributions in the analyses of data and preparation of this report. John Tippeconnic provided valuable assistance at various points throughout the study, as did others at the Center for Indian Education at Arizona State University. The American Indian Institute at the University of Oklahoma hosted the training of field data collection teams and made other significant contributions in a number of areas. The involvement of each of these individuals and organizations was highly important.

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Throughout the study, the involvement of Dorothy Shuler, project officer, was substantial, and she was a positive force at all times. At various times, others in the Department of Education, particularly Patsy Mathews, then of the Indian Education Program, and Keith Baker of the Department's planning staff, provided particularly useful advice and were otherwise quite helpful. Finally, we wish to acknowledge the literally thousands of Indian and Alaska Native students, parents and educators who participated in the study and the staff of the local school districts who were involved. With almost no exceptions, these individuals were gracious and most helpful.

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CHAPTER 1: INTRODUCTION

In 1972, the Indian Education Act was passed by Congress. An Office of Indian Education, within the U.S. Office of Education, was created by the legislation to administer the provisions of the Act. For the first time, a major Indian education program was located outside the Bureau of Indian Affairs (BIA). Although there were difficulties in the initial implementation of the Act, the Office of Indian Education was able to provide funds to public school districts for the first time, in 1973, to meet the "special educational needs of Indian students."

This report presents the results of an evaluation of Part A of the Indian Education Act. The Part A Program provides formula grants, upon approved applications, to local educational agencies provided they meet specified criteria relative to the enrollment of Indian children within their districts.[1] To receive a grant, eligible school districts are to have established an Indian parent committee; to have conducted a needs assessment to determine the special educational needs of the Indian students enrolled in their schools; and to have developed a program plan based upon those identified needs. The other two major components of the Act, Parts B and C, authorize the award of special grants to Indian tribes, organizations, and institutions of higher education in order to improve the educational opportunites for Indians, and were not part of the evaluation.[2]

The study was conducted by the authority of the Secretary of Education, and represents the first impact evaluation of the Part A Program since its inception.[3] The study was conducted in response to requests from the Senate Interior Committee for systematic information describing Part A Program operations and impacts and from the House Subcommittee on Interior and the Committee on Education and Labor, which had also repeatedly asked for similar information.

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[1] A local education agency is entitled to receive a grant if the number of Indian children enrolled in that agency's schools either totals ten or more, or represents at least half the total enrollment for that agency. However, an agency may apply without regard to the enrollment requirements if it is located in Alaska, California or Oklahoma, or is on, or in proximity to, an Indian reservation.

[2] A small proportion of Part A funds go to tribally-operated and Indian-controlled schools on or near reservations, and these were not included in this study.

The Part A Program regulations are broad, and the Program permits a wide spectrum of allowable activities to be carried out in a number of different ways. The regulations prohibit the use of grant funds to supplant activities supported by state, local, or other federal funds which would, in the absence of grant funds, be made available for the education of Indian children. The projects, therefore, supplement existing programs by providing such permissible services and activities as: tutoring in basic skill subject areas; instruction in tribal heritage, Indian history, and political organization; accelerated instruction that provides additional educational opportunities; instruction in Indian languages and Indian arts and crafts; home-school liasion services; personal and academic related counseling services; and vocational and post-secondary awareness programs.

Study Purpose and Framework

When the Indian Education Act was passed, Congress, Indian leaders, and concerned others expected the Part A Program to cause a number of changes in the education of American Indian and Alaska Native students, and the relationship between public schools and Indian communities. This study was launched to determine what, if any, changes or impacts had occurred. Specifically, the evaluation's objectives were:

- To describe the range of Part A project objectives, the groups of children served, the academic and cultural activities provided, and the patterns of funding;

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[3] A national descriptive study of the Part A Program was completed in November 1978 for the Department of Education (A National Evaluation Survey of Projects Funded Under Title IV, Part A of the Indian Education Act of 1972, by Communications Technology Corporation of Marlton, NJ) which provided information useful in the design of this impact evaluation.

- To determine the nature and extent of Part A Program impacts on Indian/Alaska Native students, Indian/Alaska Native parents, and local school districts; and
- To determine what, if any, changes in legislation or regulations would provide more comprehensive and effective ways of meeting the educational needs of Indian/Alaska Native children.

From the outset, the study was recognized as being highly complex. The central task was to assess the impact of a ten-year old program whose purpose was to serve the "special educational and culturally related academic needs" of Indian and Alaska Native students in grades K-12 from over 200 tribal or cultural groups located in over 1,000 school districts. This purpose was to be accomplished through local projects which received quite small amounts of money,[4] and with program regulations which directed local projects to be supplementary in nature and tailored to local needs and conditions. Even as the evaluation began, it was clear that a wide diversity of objectives, activities, and context characterized the Part A Program.

To assess the Part A Program adequately required an equally complex study design. Most broadly, this evaluation was conceived as a multidimensional study focused upon identifying the Part A Program's results since its inception in 1972. It included an inquiry into: (a) the Program's origins and initial intent; (b) the operations of the office responsible for administering the Indian Education Program; and (c) local level operations and results based on visits to a representative sample of projects.

From another perspective, the study may be viewed as consisting of four related studies. As depicted in Table 1-1, they are:

- The Preliminary and Exploratory Study;
- The Local Projects Impact Study;
- The Alternative Resources Study; and
- The Small Projects Study.

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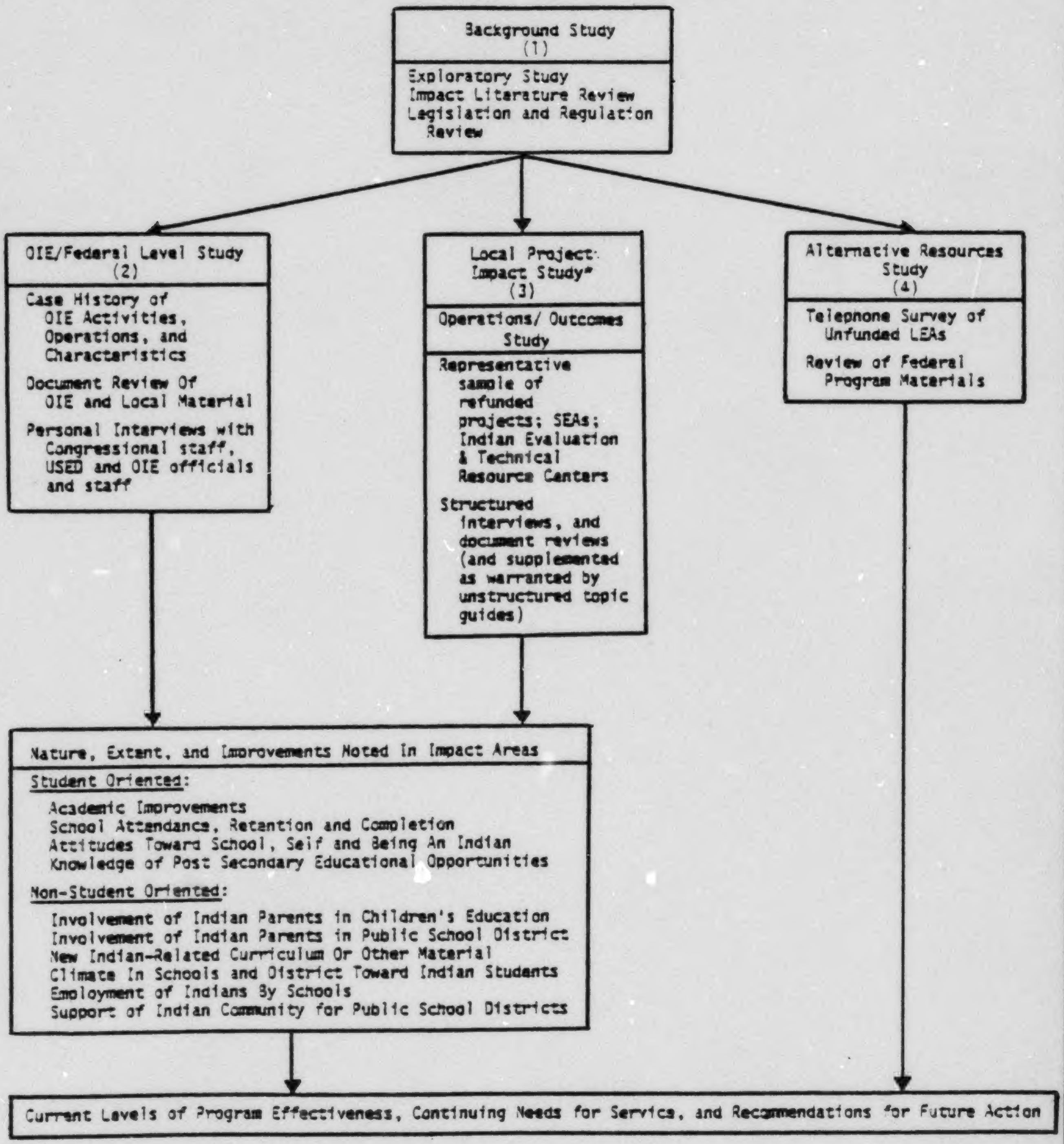
[4] In FY 80, the year on which study design decisions were based, there were 1,094 Part A projects; the median grant was $22,286, with grants ranging from $1,042 to $969,625. In that year, 25 percent of the projects received grants of less than $10,000, and only 17 percent received grants of $60,000 or more.

TABLE 1-1

OVERVIEW OF IMPACT EVALUATION DESIGN


Background Study
(1)
Exploratory Study
Impact Literature Review
Legislation and Regulation Review
OIE/Federal Level Study
(2)
Case History of OIE Activities, Operations, and Characteristics
Document Review Of OIE and Local Material
Personal Interviews with Congressional staff, USED and OIE officials and staff
Local Project Impact Study*
(3)
Operations/ Outcomes Study
Representative sample of refunded projects; SEAs; Indian Evaluation & Technical Resource Centers
Structured interviews, and document reviews (and supplemented as warranted by unstructured topic guides)
Alternative Resources Study
(4)
Telephone Survey of Unfunded LEAs
Review of Federal Program Materials
Nature, Extent, and Improvements Noted In Impact Areas
Student Oriented:
Academic Improvements
School Attendance, Retention and Completion
Attitudes Toward School, Self and Being An Indian
Knowledge of Post Secondary Educational Opportunities
Non-Student Oriented:
Involvement of Indian Parents in Children's Education
Involvement of Indian Parents in Public School District
New Indian-Related Curriculum Or Other Material
Climate In Schools and District Toward Indian Students
Employment of Indians By Schools
Support of Indian Community for Public School Districts
Current Levels of Program Effectiveness, Continuing Needs for Service, and Recommendations for Future Action

*Approximately 80-90% of the Evaluation resources are devoted to this study (Study 3). The purpose of studies 1 and 2 are to provide important contextual and interpretive information relevant to the impacts of local projects. The purpose of Study 4 is to address several topics of particular interest to Congress and to provide information which will be useful in considering the continuing need for and directions of the Part A program.

The Preliminary and Exploratory Study was essentially an evaluability assessment and information acquisition endeavor undertaken to provide information necessary for the evaluation's design. Included were:

- A review of literature pertinent to Indian education and impact evaluation;
- A review of the Indian Education Act's legislation, hearings, and regulations;
- A review of Part A documents, applications, and other local project and district material on file with the Department of Education;
- Personal interviews with congressional staff, and officials and staff from several offices within the Department of Education; and
- Visits to nine Part A projects representing a diverse cross-section of settings, sizes, and types of Program activities.

The diversity of expectations, needs, activities, and settings became clear during this early assessment. Except at the broadest of levels, there were substantive disagreements among key staff within the Department of Education and also among congressional offices regarding the purpose of the Part A Program and criteria by which it should be assessed. For some, the program was perceived primarily in terms of improving basic academic skills. For others, its primary purpose was to heighten awareness and understanding of Indian history and culture, or to increase student pride and self-esteem. Also, for many, but not all, the primary goals of the Program included bringing about attitude and policy level change within local education agencies. Similarly, many also considered increases in the involvement of Indian parents in the local school system a critically important dimension of the Program.

These varying perspectives were held by persons with legitimate interests and influence in the Part A Program, and had been communicated, at least to some extent, as priorities to local project staffs. Thus, in planning the evaluation, it was decided to gather and report impacts on each of these areas. However, it was recognized that because of limited project resources and the federal mandate that projects be locally designed, it would be inappropriate to expect most projects to have discernible impacts in each.[5]

The Local Projects Impact Study was the central focus of the evaluation, and its results constitute the major portion of this report. In brief, the data for this study were collected from a stratified random sample of 115 of the Part A projects funded during the 1981-82 school year, which were funded for three consecutive school years (1979-80, 1980-81, 1981-82) and which reported having more than 30 Indian students in 1980. By screening out projects which had not been consistently funded and projects with small numbers of students, the study was assured a sample of projects with sufficient numbers of students and with a history that would allow the gathering of longitudinal data which could be used to provide an assessment of project impacts over a period of time. A total of 865, or 85 percent of all Part A public school projects funded during 1981-82, remained in the universe after screening (the others were included in the Small Projects Study or the Alternative Resources Study described below). Interview or questionnaire data were gathered from a variety of respondents from each of the 115 projects in the study sample. School records were also consulted for information concerning students, project activities, and the characteristics of the school district itself. Tables 1-2 and 1-3 provide a listing of the data collection instruments and the number of respondents or school districts from which data were obtained for each instrument. A discussion of the methods and procedures used in this study are presented as Chapter 2 of this report.

The Alternative Resources Study examined the federal, state, and local funding resources, other than funds from Part A of the Indian Education Act, for the education of Indian/Alaska Native children. The results are based on a probability sample of school districts with Indian students, both districts which do and do not receive Part A funds. Projects which were not visited as part of the Impact Study were contacted by telephone, and a review of pertinent federal program materials was also conducted.

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[5] A description and the results of these preliminary activities are presented in: Reimer, J. Interim Report on the Part A Program: A review of findings to date, March 1981.

TABLE 1-2

RESPONDENTS TO FALL AND SPRING INTERVIEWS AND QUESTIONNAIRE ADMINISTRATIONS

Respondents	Fall	Spring
LEA Administrators*	154	109
Title IV Project Directors	114	108
Title IV Staff	114	413
Tutors of Indian Students	--	329
Indian Students, Grades 4-6**	5,393	5,201
Indian Students, Grades 7-12**	8,145	7,369
Title IV Parent Committee Chairperson	114	--
Title IV Parent Committee Members	--	290
Parents of Indian Students	--	1,546
Elementary and Secondary School Principals	--	450
Regular Classroom Teachers of Indian Students	--	1,307
Indian Community/Tribal Leaders Not Associated w/Part A	--	102

*Fall=Superintendents and supervisors of Part A Project Directors. Spring=Supervisors only.

**A discussion of the representativeness of the student sample is presented on pp. 42-44.

TABLE 1-3

DATA COLLECTED FROM SCHOOL RECORDS

Type of Data Collected	Number of Cases*
School district characteristics	115 districts
School attendance of Indian students (5 years per student, where available)	8,376 students
Reading and math achievement test scores (spring 1981)	6,425 students
Characteristics and progress of tutored Indian students**	3,123 students
High school completion data on 5 cohorts of Indian sophomores (1971-1979)	2,098 former students

*School record data were collected only once, either during the fall or spring depending on the type of data.

**Tutors filled out forms for each tutored student.

Finally, the Small Projects Study involved the examination of Part A projects receiving $5,000 or less in 1981 and/or serving 30 or fewer Indian students, and which were funded for three consecutive years (1979-80 through 1981-82). All 32 of these projects were selected, and a review of their applications and other grant materials was conducted at the Indian Education Program office in the Department of Education.

Telephone interviews were attempted with project directors, parent committee chairs, and a district administrator at all projects. Various materials were also requested and later reviewed. Three of the most promising projects were visited and more detailed data gathered. The results of this essentially qualitative assessment of the impacts of very small projects are presented in Chapter 13 of this report.

Indian Involvement in the Study

The Department of Education required that the final design and implementation of the study make heavy use of Indian professionals. Thus, from its start, the study was designed to provide for the substantive involvement of Indian educators at all points. For example, as much cultural matching of interviewers with respondents as possible was required in order to increase the probability of gaining valid and useful data. Similarly, it was required that Indian researchers play a substantive role in the study's conceptual design, the development of data collection instruments, and data analysis and interpretation.

Consequently, during the early stages of the evaluation, Development Associates identified and initiated ongoing consultations with knowledgeable Indian and Native American educators who possessed a variety of experience and expertise. These individuals were known to have a thorough knowledge and understanding of Indian communities, organizations, and education in general, and of the Part A Program in particular. These consultations and involvements provided insights and strategies bearing upon the study's design, implementation, and analysis. They were also quite helpful in establishing the study's credibility within the Indian and Native communities and in securing cooperation from schools, both of which facilitated data collection throughout the study.

In addition, a technical advisory panel to the study was constituted. This panel was made up of Indian educators and reseachers from across the country who met to review and advise the study's staff with respect to study design, data collection, and analyses. They participated in decisions regarding areas and strategies of investigation; reviewed all instrumentation; participated in sampling and data collection decision-making; reviewed preliminary data and advised regarding the analytic plans; and individually reviewed and commented on drafts of this report. Throughout the study, each of these individuals devoted significant amounts of time and energy to the effort. Consistently, they were free in their criticisms of draft materials and made valuable contributions to the evaluation overall.

The study also utilized over sixty Indian professionals as paid consultants at various critical points. Throughout, Bear Chief and Associates (an Indian owned and staffed consulting firm) served as a subcontractor to Development Associates. During the instrument development stage, some forty Indian educators -- teachers, project directors, and university professors -- reviewed and offered revisions to the various questionnaires. Data collection itself was undertaken virtually entirely by Indian or Alaska Native professionals. Field staff were provided an intense week of special training prior to the fall data collection and a second week of training prior to the project visits in the spring. The field staff consisted of university faculty members, upper level graduate students with prior work experience, and experienced professional staff from Indian firms or organizations with whom subcontracting arrangements had been made.

Data analysis also included heavy Indian involvement. Native American graduate students at Arizona State University conducted the coding of all open-ended questionnaire responses from Native American interviewees. It was clear during the early analytic phase of the study that Indian educators could more accurately analyze the responses of Indian parents and project staff than could coders with little cultural or programmatic insight. Similarly, Native American graduate students from Pennsylvania State University were used to provide ratings based on a qualitative assessment of recorded data of the cultural components of the Part A projects. More substantively, several Indian researchers were directly involved in planning and conducting statistical data analyses and writing draft sections of the study's reports.

Cooperation with Local Education Agencies

The evaluation design required considerable time and cooperation from the local school districts that became involved. In addition to Part A Program staff and members of the Indian community, superintendents, assistant superintendents, principals and teachers were surveyed and files reviewed. Frequently, developing the sampling frames for the selection of Indian students and securing school attendance records and achievement test scores on individual students involved considerable time from school personnel.[6] With few exceptions, school districts readily agreed to participate in the study and maintained their cooperation throughout the school year.[7] Typically, school personnel were interested in their Part A projects and desired to assist in the Program's evaluation.

Local cooperation of school officials was encouraged somewhat by offering to provide local staff with feedback on their projects. To accomplish this, the study design called for supplying project staff with information which could be useful in planning future activities collected from their sites as soon after the spring data collection as possible. Thus, during the fall and early winter of the 1982-83 school year, the participating projects were sent summarized results of surveys of regular classroom teachers, Indian students, and Indian parents at their site. Also, most projects were provided with analyses of Indian student achievement test scores and with school attendance data comparing Indian students in their districts with state or national norms.

Content and Organization of this Report

From the outset, the Department of Education made it clear that this study was of concern to a variety of quite different audiences. Various groups within the Department, the Congress, the Native American Community, the state education agencies, and the local school districts have an interest in particular findings and the results overall. Early in the study it became clear that not all potentially relevant issues or questions could be addressed within the existing resource limits. It was also clear that the various audiences would not always agree in their interpretations of the Part A Program's historical context, study findings, or the preferred style and format for presenting results.

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[6] In some cases, the cost of their time was reimbursed through the study, but often it was not.

[7] The extent of project replacement and attrition is discussed in Chapter 2.

Consequently, various strategic decisions and accommodations have been made throughout. With respect to analytic content, the study team attempted to address the key issues raised early in the study by congressional staff, responsible persons in the Department of Education, and members of the Indian Community on the study advisory panel. Regarding the context of findings, a middle ground has been sought. Some historical and organizational materials are presented in Chapter 4 as important context for local project findings, and the results of a separate study of the role of the states in Indian education is presented as Appendix 4. The report, however, does not purport to thoroughly address the long and complex history of Indian education in the United States. A middle ground was sought as well with respect to interpretation and presentation of results. Where deemed appropriate, interpretations of findings are offered and extended analyses were made. Elsewhere, however, the data are largely allowed to speak for themselves, as their meaning is embedded in controversies over values or interpretations of legal or historical facts.

With respect to the structure of this volume, Chapter 2 provides a summary of the study methods and procedures. Chapter 3 provides some historical context for the Indian Education Act and a discussion of the background and operations of the Part A Program at the federal level. Chapter 4 provides an overview of the Part A Program, including a description of local settings and participants, and Chapter 5 discusses the needs addressed and the objectives of the local projects. Chapters 6 through 12 describe particular project activities and their results. Specifically, they address academic performance (Chapter 6), student attendance (Chapter 7), cultural programs (Chapter 8), student attitudes toward school and self (Chapter 9), student knowledge of post high school academic opportunities (Chapter 10), parent involvement (Chapter 11), and impacts on the practices and climate in school districts (Chapter 12). Chapter 13 provides the results of the qualitative survey of very small projects, and Chapter 14 contains a summary of overall findings and conclusions.

Finally, this volume contains five appendices. Appendix 1 contains a listing of major legislation affecting Indian education. Appendix 2 contains a discussion of standard errors associated with the estimates of selected Part A Program characteristics. Appendix 3 presents detailed results of a path analysis, discussed in Chapter 11, to determine what factors affect parents' general satisfaction with Part A project. Appendix 4 contains the results of a substudy focused on the role of the states in Indian education, and Appendix 5 contains the results of a substudy focused on the resources used in public schools to serve Indian students in addition to those available through Part A. Chapter 2, which immediately follows, contains a summary of the study's methods and procedures.

CHAPTER 2: OVERVIEW OF THE STUDY DESIGN AND METHODOLOGY

This chapter provides a summary of the key evaluation issues facing the study, and the design approaches and statistical techniques used. The overall purpose of the evaluation was to reach some conclusions about the impact of the Part A Program of the Indian Education Act.

The evaluation sought to be accurate and sensitive enough to measure past and current Part A Program impacts without misrepresenting the Program and its importance. This was acknowledged as difficult because projects are small, supplementary in nature, and quite diversified in terms of program emphasis and the intensity of program activity. Many projects intended to affect students' self-esteem, pride in being an Indian, attitude toward school, cultural knowledge, and many other areas, in addition to academic improvement. Projects also sought to increase parental involvement in the education of Indian children, as well as impact upon school districts, schools, and staff.

Thus, the challenge was to design an evaluation which was responsive enough to access accurately and sensitively the myriad possible past and current Part A Program impacts, recognizing all the while that the Program was not the only intervention likely to affect Indian students. Besides regular school programs, Chapter 1, Johnson O'Malley Act programs, and other federal efforts, tribes and Indian organizations in many areas operate special educational programs focused on academic and cultural activities. More specifically, the evaluation was designed to:

- Describe the Part A Program, focusing on local projects and students; and
- Assess the extent to which Program activities have impacted on Indian students, Indian parents, and the public schools which the students attend.

Thus, the study may be conceived as a multidimensional evaluation of the Part A Program, focused upon identifying and explaining the results since its inception in 1972, and including an inquiry into the Program's origins, operations at the federal level, and local-level implementation, results, and ongoing needs.

Overview of the Study Design

As discussed in Chapter 1, the study actually involved four components. They were:

- The Preliminary and Exploratory Study;
- The Local Projects Impacts Study;
- The Alternate Resources Study; and
- The Small Projects Study.

The results of these four were intended to provide:

- A balanced and detailed picture of the current levels of Part A Program involvement and effectiveness at the local level;
- An estimate of the continuing need for federal assistance in the education of Indian children; and
- The necessary basis upon which to make recommendations for future action, with regard to Part A and Federal involvement in the education of Indian children.

The evaluation required a variety of descriptive and impact data about the projects, the people directly or indirectly involved, and the settings (e.g., community and school districts) that surround them. Building upon the knowledge and information acquired during the Preliminary and Exploratory Study, an evaluation design was developed which evolved as the study progressed. Indicators of potential impact were sought and assessed from many different sources and over several different dimensions, as noted in Table 2-1 (Analytic Framework).

These multiple impact indicators from multiple sources were used to:

- Detect any form of impact on that dimension, if such had occurred;
- Obtain a consensus or agreement among findings from different sources that an impact had occurred; and
- Obtain a fuller and more balanced picture of what types of impacts might be attributable to Part A, so that the extent of Part A effectiveness could be understood better and the findings more easily presented to various audiences.

TABLE 2-1
ANALYTIC FRAMEWORK

	Students	Parents	School District	Indian Community	Part A Project
Description	(1) a. Personal characteristics (Grade, SES, etc.) overall and by project component b. Needs	(3) a. Personal characteristics b. Parent Committee structure and functions	(5) a. District characteristics (Demo, location, etc.) b. School climate c. Staff characteristics d. Support for project	(7) a. Organizational characteristics	(9) a. Budget b. Staff c. Objectives d. Activities e. Participants f. Relations with Indian parents/Parent Committee, Indian Community g. Relations with school staff h. Materials i. Administration j. Relations with OIE, SEA, Resource/Evaluation Centers k. History
Outcomes and Impacts	(2) a. Academic improvements b. Cultural awareness and group pride c. School attendance, retention and completion d. Academic self-concept and competence e. Attitude toward school f. Global self-esteem g. Knowledge of post-secondary educational opportunities h. Relations with non-Indians i. Importance of project	(4) a. Involvement in school decision-making b. Attitude toward school c. Involvement in children's education d. Involvement in Community affairs e. Personal gain in knowledge/employment f. Involvement in project	(6) a. School climate b. Employment practices c. Participation in decisionmaking d. Curriculum/materials changes e. LEA policies	(8) a. Involvement in project b. Involvement with school district c. Policies or systems pertaining to education of Indian children	(10) a. Overall

Broadly speaking, the following six basic types of information were collected within the scope of a quasi-experimental impact evaluation:

- Descriptive data concerning project operations and funding;
- Mediating variables that "explained" impact measures;
- Confounding variables (i.e., factors at the core of Part A operations, such as funding from other sources, which made it potentially difficult to attribute outcomes to Part A);
- Impacts on students;
- Impacts on parents and Indian communities; and
- Impact on school districts.

The descriptive data were used to present a profile of the:

- Students and communities served;
- Sources of project funding;
- Typical program components and services;
- Project staff characteristics; and
- LEAs and schools.

Finally, impact questions addressed by topical studies were subgrouped where possible under broader research questions. Results for topical studies were synthesized both for the narrow impact questions addressed, as well as for the broader questions. Where topical studies addressed identical or related impact questions (as did the interview instruments), the results of both were compared and synthesized. Similarly, where qualitative studies incidentally picked up information relevant to results of the interview, this information was incorporated into the quantitative results of the evaluation.

Major Issues Addressed by the Evaluation

As indicated in Chapter 1, three basic objectives governed the study:

- To describe accurately and sensitively the range of Part A project objectives, target groups, cultural activities, and program funding patterns;
- To determine the nature and extent of Part A Program impacts on Indian/Alaska Native students, their parents, and local school districts; and

- To determine what, if any, changes in legislation or regulations will provide a more systematic and effective approach to meeting the educational needs of American Indian/Alaska Native children.

To address these objectives, a series of major study questions were developed and are shown in Table 2-2. These questions guided the identification of information sources and types of data required, and aided in the selection of analytical tools.

TABLE 2-2

MAJOR STUDY QUESTIONS GUIDING THE EVALUATION

1. What are the organizational, fiscal, and human resources available to Part A projects, and how do projects utilize these resources?
2. To what extent do the objectives of projects funded under the Part A Program address the special educational and/or culturally related academic needs of American Indian/Alaska Native children?
3. How have Part A project activities been implemented?
4. What are the impacts of Part A projects on American Indian/Alaska Native students?
5. What impacts do Part A projects have on the parents of American Indian/Alaska Native children and on the American Indian/Alaska Native community that projects serve?
6. What impacts do Part A projects have upon their LEAs?
7. How do federal-level activities, especially those of the Indian Education Program Office, affect Part A projects?
8. What federal education funds are expended by local school districts on Indian students in grades K-12, and how many of these students are receiving various types of special services?

Several of the study questions (1, 2, 3, and 8) were primarily descriptive in nature and thus addressed the first objective. Other questions (4, 5, and 6) focused primarily on the impact of Part A. The third objective was also addressed through question 7, which reviewed the Indian Education Program Office's policies and activities.

Evaluation Approaches

Two basic approaches were used during the evaluation of the Part A Program. They are the quantitative and the qualitative/naturalistic approaches. The quantitative approach involved collecting data on a representative sample of projects, using structured data collection instruments developed during the design phase of the study. Qualitative inquiry was conducted at the same time in order to examine a number of specific issues/topics in a subsample of projects. The purpose of blending the two approaches was to achieve a broader and more balanced information and data base, and to provide a fuller, more complete picture of the Part A projects on which to base results and conclusions. The qualitative issues addressed during the Study are listed in Table 2-3.

TABLE 2-3

TOPICS INCLUDED IN THE QUALITATIVE PHASE OF THE EVALUATION STUDY

1. Effect of project activities on students going to college or other academic programs after high school (seeking anecdotes, special cases, rare events as evidence);
2. Effects of changes in staff at the Indian Education Program Office on local project operations;
3. Need for (additional) technical assistance by projects in curriculum design and developing other program materials;
4. Impact of the Part A project upon the academic achievement of Indian students, presently or in the past; and
5. Impact of the local Part A program upon the attendance of Indian students in the school district, presently or in the past.

Special Design Issues

1. Design Constraints. Three major factors influenced the design. First, certain of the legislatively-defined Program outputs are not easily measured. There are no generally accepted definitions of the legislative goal of meeting the special educational and culturally related needs of Indian students, nor are there accepted definitions or measures of attainment of this goal. Second, each of the school districts has broad discretion in the

interpretation of the Act and the use of federal funds. This variability required extensive onsite data collection and some tailoring of the overall design to local contexts and objectives. Third, the nature of the projects and the school-community systems in which they operate made attribution of impact findings to the Part A Program difficult.

A quasi-experimental evaluation approach was necessary, since almost all eligible LEAs with sizable numbers of Indian students, and most Indian students within these LEAs, were involved to some extent in the program. This virtually eliminated the possibility of "true experimental control groups" of any kind. This situation, combined with the supplemental nature and relatively small size of the projects, and the fact that most projects have been in operation for more than five years, compounded the problems associated with identifying student and institutional changes attributable to project activities.

As a result, extensive discussions about Program expectations and operations were undertaken with relevant congressional staff, policy and operational staff in the Department of Education, national Indian organizations, and staffs of local school districts participating in the Part A Program. To accommodate the diversity of settings, activities, and objectives, a core set of activities and impacts was investigated at all sites, with others explored only at sites where they were emphasized.

2. Types of Impacts Assessed

a. Student Impacts -- The purpose of the legislation is to ensure that the special educational and culturally related academic needs of Indian children are met. Indicators that this has occurred include improvements in the following areas:

- Performance in basic academic skills;
- School attendance;
- Knowledge of Indian (tribal) heritage, history, and culturally related topics;

- Involvement and interest in school;
- Student self-esteem; and
- Post-high school academic performance (securing a high school equivalency degree, attending college, etc.).

However, given the size and scope of most local projects, there was agreement from the start that it would be inappropriate to expect impacts in all areas in most projects. Thus, the study was designed to accommodate individual project settings and objectives, and to utilize measures sensitive to highly varied local interventions.

b. Parent Impacts -- Congressional testimony leading to enactment of the Part A Program contained a great deal of evidence which documented the alienation of Indian parents from the public schools and the widespread lack of parental support for their children's school performance. For this reason, the legislation and subsequent regulations stressed parental involvement in the planning and implementation of local projects. Indeed, the congressional mandate for parental involvement is more explicit and far reaching than in any other educational legislation. It was also expected that the Program would encourage Indian parents to be more active in their children's schools and educational activities. Thus, in early discussions with individuals at the national and local levels, there was consensus on the importance of assessing the impact of the Part A Program on parents and their involvement with the project and the schools. Parental impact areas considered to be of particular importance were:

- Involvement in school advisory and decision-making bodies (PTAs, project committees, school boards, etc.);
- General attitude and support for local schools;
- New, non-school related involvement in community affairs; and
- Personal gains in knowledge, education level, or employment as an outgrowth of project involvement.

c. School District Impacts -- Legislative testimony and rationale for the Part A Program also included strong evidence of the insensitivity of many local school districts to the special educational and culturally related needs of Indian students. Indeed, this factor was widely cited as the basic rationale for the Program and its special student and parent related activities and objectives. Thus, although few local projects include impacts on their school district among the explicit project objectives, from a national perspective, this is a critically important area of investigation which speaks directly to issues of program continuation and direction. From the review of relevant literature and discussions at the national and local levels, the school district impacts considered of particular importance were:

- Use of curriculum and classroom materials that recognize the positive contributions of Indians/Natives to American life;
- Employment of Indian professional personnel;
- Sensitivity of instructional and building-level school staff to Indian customs and values as they affect students in school perceived by the Indian community; and
- Modification of any pre-existing school policies judged onerous by the Indian community.

d. Community Impacts -- In addition to these impacts, it was believed that the Program may have had other important, if unintended, consequences. These were thought to be particularly likely with respect to the relationship between the Indian community at large and public school systems. Consequently, the study design and instruments incorporated some questions that explicitly addressed this potential impact area.

3. Issues in Measuring Student Achievement and Attitudes

a. Achievement Assessment. In developing the evaluation study design, considerable attention was given to the appropriate use of standardized achievement test scores. It was initially presumed that these would be a centerpiece of the data collection and assessment effort. However, after a thorough literature review, consultations with leading national experts on student achievement testing and evaluation design,[1] a close look at Part A project applications, and exploratory visits to several representative local projects, the initial expectations for design feature changed. Essentially, it was concluded that the academic "treatments" provided by most projects were not appropriately assessed with standardized tests of basic academic skills. Treatments were frequently either too specific (e.g., tutoring in a particular subtopic of a particular class) or too diffuse (e.g., including some language arts instruction as part of an Indian student club's activities) to be captured by broadly focused standardized tests, and some tutoring focused on social studies, science, and other academic subjects which such tests do not address. Rather, it was decided that although achievement test data were important for the study overall, they would be of only secondary relevance in evaluating the tutoring component. For that purpose, various forms of rating scales from tutors, students, teachers and parents were expected to provide a more accurate assessment. Achievement test data would be used instead primarily to provide a description of the current status and needs of Indian students with respect to academic performance, and also to perform cross-sectional analyses to explore potential relationships between test scores and student attitudes, cultural knowledge, and general program characteristics.

Thus, it was decided to collect existing reading and math standardized test data for the spring preceding the site visit (i.e., spring 1981) from all projects where they were available. Given the purposes for which they would be used and the considerable costs and respondent burden involved, direct testing of students was not considered justified.[2] Test score data were collected from school files, converted to a common metric, and then cross-sectionally compared across grade levels and other student- and project-level factors (controlling for differences in participant-nonparticipant student characteristics). Also, in those projects with students in tutoring components, pre- and post-ratings on several academic and other school-related performance dimensions were obtained. For those students, plus those not receiving any specific assistance with basic academic skills, assessment of academic achievement was based on composite item ratings of teachers, parents, students, and staff.

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[1] Among others: Gene Glass of the University of Colorado, Ronald Berk of Johns Hopkins University, Rodney Skager of UCLA, William Coffman of the University of Iowa, and Donald Ross Green of the California Testing Bureau.

[2] Data for only the previous year were sought because of prior experience in seeking multiyear data from school files. Year-to-year changes in district testing policies, alternate grade testing, and the general condition of many school files make it infeasible to seek retrospectively multiyear data in a national sample of LEAs.

b. Attitude Assessment. Particular attention during the design process was also given to the problems of assessing Indian student attitudes and self-esteem. Nationally-recognized experts in this field contributed extensively both to the basic evaluation design decisions and to the development of study instruments.[3] After extended deliberation and the involvement of Indian educators across the country, it was concluded that data should be collected from students about their attitudes toward themselves, their attitudes toward school, and their identification as Indians or Alaska Natives. These are legitimate areas to assess because over 75 percent of all projects included such changes among their project objectives. The objectives of projects and the nature of the activities in some projects also made it appropriate to assess whether student attitudes in these areas had improved during the school year as a result of project exposure.

However, there was considerable discussion and some disagreement among the study's Advisory Panel about the merits of collecting these attitude data. Several members strongly believed the attitudes of Indian students were, and had long been, quite positive and that projects had no hope of improving them within a year's time. Others argued that if this were indeed true, the study's findings would usefully call into question popular beliefs in this area. Consequently, the plans called for students to complete a series of attitude scales (along with other questions dealing with project participation) during the fall and spring site visits. The attitude data were analyzed for each period and each dimension separately, and then across time periods and dimensions using comparisons of shifts in student and group means. Findings were related to the self-concept and other relevant literature so that they could be interpreted in context.

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[3] In particular, Professors Morris Rosenberg of the University of Maryland and Joseph Trimble (Oglala Sioux) of Western Washington University.

4. Additional Considerations. Finally, several cornerstones of the design are relevant to mention. All instruments were reviewed extensively for their content validity and measurement properties by a large number of Indian educators and recognized evaluation authorities. In addition, the sampling design was constructed to provide statistically representative samples of projects, parents and students, and tribal leaders or community representatives. Also, relatively more of the larger Part A projects were chosen to increase the statistical power of the design and therefore the likelihood of detecting impact, since more resources were presumably available in such settings.

Furthermore, the impact analytic approaches deliberately incorporated various contextual, project, and student characteristics, so that such variables as project size and location were directly considered as alternative or competing explanations for impact levels and shifts in those impacts. The analyses also proceeded in a series of stages or modules which went from purely descriptive to univariate and multivariate impact analyses as warranted. This modular approach extended to jointly analyzing impact indicators that addressed dimensions related to each other. In this way, obtained findings and inferences were made more clear-cut. The interpretation of the findings was enhanced by using external sources of data for baseline purposes. In addition, using relevant data from past or ongoing national and local evaluations and studies helped to place the study findings in context and substantiate their validity.

In summary, the special design issues which emerged in evaluating the Part A Program were problematic. However, they were addressed by using a variety and breadth of design approaches and appropriate statistical and interpretative techniques. Such a combination has produced a descriptive yet indepth profile of Part A projects and what they have accomplished, and insights regarding what remains to be done.

Sampling Plan

1. Study Population and Sample Sizes

Because the Part A evaluation study had several purposes, a fairly complex sampling design was used to select projects, school districts, and respondents. The design was intended to fit the scope and information-gathering needs of the Local Projects Impact Study and the Alternative Resource substudy components of the overall study design.

The study included all public school districts that were eligible to receive Part A Indian Education Act (P.L. 92-318) funds. In 1980, 3,177 school districts, other than tribally-controlled schools, were eligible to receive such funds. (Tribally-controlled schools, which are eligible to receive Part A funds, were outside the scope of this study.)

Two populations were surveyed:

(1) For the sample of school districts from which data for the Alternative Resources substudy were collected, the survey population included all 3,177 school districts eligible for Part A funding.

(2) The survey population for the local project impact evaluation was an 865-project subset of the 3,177 school districts [all of which were funded for at least 3 years (1979-81) and included more than 30 Indian/Native students in 1980].

The population of projects for the Impact Evaluation Study included a total of 865 projects.[4] The 865 projects were a subset of the 1,052 projects funded in 1981, which were also funded for at least three consecutive years (1979, 1980, and 1981), and which reported more than 30 Indian students in 1980. A sample of 119 projects was originally selected from the 865 projects for the impact study.

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[4] In nearly all cases there was a one-to-one correspondence between a "project" and a "school district." In a few cases, a project was comprised of two school districts that jointly operated the project.

Of the original sample of 119 projects, 19 declined to participate in the study at the outset. With one exception (a project in Maryland), each of these projects was replaced by another randomly selected project from the same sampling stratum. Reasons for non-participation included: recent death of a project director, recent turnover of key project staff, a crisis of some sort in the district unrelated to Part A but precluding cooperation of district staff, and district policies discouraging participation in federal studies of any kind. Thus, 118 projects were visited in the fall of 1981 and, of these, 114 cooperated fully with the study throughout. Two projects withdrew from the study between the fall and spring visits. The other two projects refused access to a random sample of their students and various data about them. Three of these projects (Bering Straits, Alaska; Denver, Colorado; and San Diego, California) were not revisited in the spring and were excluded from all analyses. Some data from the other project (El Reno, Oklahoma) were gathered in the spring, and this project was included in analyses wherever possible. The final sample size, therefore, was 115. Analysis of the characteristics of the non-participating projects indicated that no bias threatening the generality of the findings is likely to have occurred, either from the initial refusals to participate or subsequent attrition.

By including in the impact study only projects with three or more years of Part A Program operations, "start-up" implementation problems, which confound and reduce the likelihood of Program effects, were avoided. Also, longitudinal data related to student effectiveness and other factors were more apt to be present. Similarly, including only projects with more than 30 students assured a data base sufficient for assessing student effects and a local project administrative structure sufficient to respond to study information needs. In 1980, projects with more than 30 students and three or more years of program operations experience represented over 91 percent of all funded LEAs. Thus, a fairly small proportion of LEAs was screened out, and the proportion of Indian students in projects screened out was also not of major concern.

The sample for the Alternative Resources Study represented a combination of two samples: (1) the impact evaluation sample of 118 projects representing the subset of 865 projects, and (2) a sample of 108 LEAs selected to represent the population of 3,177 LEAs that were eligible to receive Part A funds, but were not included in the subset of 865 projects. These two samples, properly combined and weighted, constituted a single sample whose data could be generalized to the 3,177 eligible LEAs. This sample was used to prepare a resource analysis based on estimates of three types of information:

- Total federal education funds expended by local school districts on Indian students;
- The number of Indian/Native students served by these funds; and
- The types of special services the students received.

2. Sampling Design for Selection of Projects for the Local Projects Impact Evaluation

For the Local Projects Impact Study, 119 projects were selected, but, as was discussed, data for analytic purposes were obtained from 115 of those projects. Within the sampled projects, data were collected from an appropriate district administrator, the project staff, members of parent committees, students, parents of those students, and records on file of those students. Multistage sampling, particularly the sampling of students from whom to obtain information, was involved for much of the evaluation data. However, the primary sampling units were projects.

Very briefly, the sample of local projects may be described as a stratified random sample, with probabilities of selection that were proportional to an appropriate measure of project size. For that purpose, the square root of the number of Indian students was used as the measure of size. Projects were selected with probabilities proportional to that measure. Thus, a project with 400 students would have a probability of selection which was twice that of a project with 100 students. One project was selected from each of 119 strata, yielding a sample of 119 Part A projects.

To offset the higher probabilities of selecting large projects, smaller sampling fractions were used for sampling students within large projects. In fact, the procedure was to determine and apply within-project sampling fractions so that all students in the population of 865 projects would have the same chance of being in the sample, regardless of project size.

One of the design objectives of stratified random sampling is to achieve a high degree of homogeneity within strata. To accomplish this stratification goal, 12 geocultural regions and three student density groups were defined, as follows:

- Density: Projects were first classified by Indian student density, that is, by the ratio of Indian students served by a project to the total number of students in the school district's student body. Three density groups based on percentage of Indian students were established, after holding consultations with Indian educators: less than 5%, 5.01-70%, and 70.01-100%. To a high degree, this variable stratified the sampling frame of Part A projects population in terms of:

  (a) Urban projects that have diverse tribes and relatively few Indians/Natives compared with the total number of students in the district; and

  (b) Reservation-based projects that have a single tribe and a high number of Indian students compared to all other students.

  This variable was considered important since it was thought the nature and level of student density could affect the extent of project impact. For example, Indian/Native students in urban situations may have few opportunities to strengthen their knowledge about their Indian (tribal) heritage, culture, and history. This is a particularly important factor in areas with large numbers of relocated Indians/Natives who are often disconnected from traditional family and tribal supports, especially for their children. Also, urban districts generally serve more than one tribe, unlike most reservation-based projects, and thus are serving students who are culturally diverse.

- Geocultural Region: This was the other key stratification variable. Projects were stratified by 12 geographic regions, which were judged to be geocultural regions. That is, the regional breakdown not only divided projects into geographically distinct areas, but into cultural regions as well. Use of geocultural strata ensured that diverse tribal affiliations and parts of the United States, including Alaska, were included in the sample. Projects were listed by density group within each of these geocultural regions. (See Table 2-4 for what states were assigned to each region.) This list included 852 LEAs, as the 13 largest were treated separately. From the listing of projects by density group within regions, the process of stratification continued with the objectives of equalizing strata by size and selecting one project from each stratum.

TABLE 2-4

GEOCULTURAL REGION CATEGORIES

The five Office of Indian Education Technical Assistance Regions were further divided as follows:

1. Northern Region 1 -- Illinois, Michigan, Indiana, Ohio, Pennsylvania, New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, and Maine.

2. Southern Region 1 -- Kentucky, Virginia, West Virginia, Maryland, Delaware, New Jersey, District of Columbia, Tennessee, North Carolina, South Carolina, Georgia, Alabama, Mississippi, and Florida.

3. Eastern Region 2 -- Wisconsin, Iowa, and Minnesota.

4. Dakotas (Region 2) -- North Dakota and South Dakota.

5. Western Region 2 -- Nebraska, Wyoming, and Montana.

6. Alaska (Region 3)

7. Southern Region 3 -- Washington, Oregon, and Idaho

8. California (Region 4)

9. Southwest Region 4 -- Arizona and New Mexico

10. Northern Region 4 -- Nevada, Utah, and Colorado

11. Oklahoma (Region 5)

12. Region 5 Remainder -- Texas, Louisiana, Arkansas, Missouri, and Kansas.

After making a preliminary selection of the projects, the composition of the sample was reviewed and discussed with the study's Technical Advisory Panel of Indian educators on the basis of the following factors:

- Geocultural region (overall for specific states, and within particular states such as Alaska, California, and Oklahoma which have large numbers of projects);
- Proportions of reservations, rancherias, urban settings, and suburban sites;
- Indian tribal diversity and heterogeneity; and
- Shifts from 1980 to 1981 in the number of students served by each project.

Based on these factors, some strata were redefined and some resampling occurred. However, the number of strata and the sample size were not changed. The final selection of projects adhered to the principles of probability sampling, except that substitutions were later required owing to non-cooperation of some LEAs. When substitution was necessary, a project was selected which matched the original as closely as possible in size and other characteristics, and was drawn from the same stratum.

3. Sampling of Respondents Within the Local Projects Impact Evaluation Sample

In general, study data were collected from the following ten respondent groups in the 115 projects from which data were collected:

1. School district administrators (superintendents or their designees, and assistant superintendents, coordinators of federal programs, or another administrator directly supervising the Part A project director);
2. Part A project directors;
3. Teaching and non-teaching project staff (the latter including counselors, resource specialists, and tutors);
4. Parent Committee chairpersons and three active committee members designated by the project director or chairperson;
5. Indian community and tribal leaders (one person not directly associated with the project selected in the following order, depending on

availability: (a) chairperson of the tribal education committee or his/her designee, (b) chairperson of an urban Indian center's education committee or his/her designee, (c) person identified by most interviewed parents as the most interested and influential member of the Indian community with respect to educational issues);

6. Indian students in grades 4-12 attending schools and in grades where Part A project activities were available;
7. Parents of a random sample of sampled Indian students;
8. Principals of schools having Part A activities;
9. Regular classroom teachers of Indian students but not associated with Part A; and
10. Students formerly in high schools in sampled districts (i.e., those having Part A projects).

The procedures used for selecting each of these types of respondents along with a description of the type of information obtained are summarized below.

(a) School District Administrators. In each of the 115 projects, the corresponding school district superintendent or the coordinator of federal programs (or administrator who directly supervised the Part A Program within the district) was contacted.

While the title of the supervising administrator varied from district to district, in reality, the role of the individual and his/her access to project data were the key factors for selection. Probability sampling was not involved in selecting the type of administrator. Rather, the administrator considered most appropriate for dealing with the topics included in the LEA Administrator Questionnaire was contacted.

Version 1 of that instrument dealt with background characteristics of the district, district support provided to the project and an assessment of project impacts on students. Version 2 of the instrument dealt with issues relating to the various effects of the project during the school year as perceived by the district, as well as the functioning of special programs, such as Part A, within the district environment. Version 1 was administered to the superintendent, the assistant superintendent, or the federal program officer during the fall data collection period. Version 2 was used during the spring data collection period, and every attempt was made to interview the same individual as in the fall.

(b) Project Directors. The directors of the 115 projects or their designated representatives were contacted during both the fall and spring data collection periods. The fall interview focused on project characteristics, while the spring interview focused on the project's impact during the current school year and since its initial funding. Various types of impact dimensions were included in the Project Director spring form. In addition, those portions of the Overview of Project Scope and Component Description form that were appropriate to a given project and that characterized the project's activities were completed by the director or designated staff during the fall visit. Also during the fall, the field staff completed document review and file search activities, using the Document Review form and the Post High School Follow-up Survey Questionnaire.

(c) Project Staff. Project staff were given a questionnaire during the spring data collection period, and some were also asked by their project director during the fall to complete certain sections of the Ovarview of Project Scope and Component Description form, if relevant to their project assignment. In general, all staff who worked half time or more and were paid for their efforts were surveyed. Any staff member in charge of a program component was also contacted. However, in small projects with only part-time staff, and with no one, excluding the project director, working half time or more, the one or two non-clerical staff members who worked at least 20 percent of full time (supported in whole or part by Part A) were asked to fill out staff questionnaires. On the other hand, in projects with ten or more non-clerical staff working half time or more, and at least partially supported by Part A, a probability sample of staff members was selected.

(d) Parent Committee Chairpersons and Members. Chairpersons and two other officers of each of the 115 Part A parent committees were contacted. Chairpersons were interviewed in the fall. The two officers and chairperson were surveyed, using the Parent Committee Questionnaire, during the spring data collection period. If no chairperson was available, vice-chairpersons were contacted. If no designated chairperson or vice-chairperson currently existed, the next most senior or experienced member of the committee was contacted.

(e) American Indian/Alaska Native Community Representatives and Tribal Leaders. These respondents were interviewed during the spring data collection period by using the Indian Tribal and Community Leader Interview Guide. They were contacted to gather perceptions of Indian leaders not directly associated with the project. One community representative or tribal leader was interviewed in each of the 115 local project settings. Since the identity of the most appropriate individual to interview was not always readily apparent, especially in urban areas, it was the responsibility of the data collector to determine whom to interview onsite. The following decision rules were applied:

(1) The chairperson of the tribal education committee or his/her designee;

(2) The chairperson of the urban Indian center's education committee or his/her designee; or

(3) If neither of these was present, the person identified by most parents as the most influential Indian individual in the district concerned with education, who was not employed by the project or otherwise included in the survey.

(f) Students. Probability samples of Indian students who were attending schools and in grades where Part A services were provided were drawn in each of three grade level ranges: 4-6, 7-9, and 10-12. (It was not considered feasible to collect data from a large sample of children in grades Pre K-3 since this group would have required individualized data collection sessions rather than the group sessions used with the older students.) The sample was of students for whom services were available, not simply of those involved in the projects.

For sampling purposes, each grade-level range was treated as a separate population to be sampled and the objective was to obtain a sample of students within each grade range, so that every eligible student within the grade range in the entire population had an equal chance of being selected. Within projects, the following probability formula was applicable for sampling students. It was applied to each grade range separately. The formula is:

$$F_{ij} = P_i f_{ij}$$

where F_{ij} is the overall probability which the jth student in the ith project had of being in the sample, P_i is the probability which the ith project had of being selected, and f_{ij} is the probability which the jth student in the ith project had of being selected, given that the project had already been selected.

Within a grade range and project, all students were to be selected with equal probabilities. Therefore, f_{ij} may be simply expressed as f_i, the sampling fraction to be applied within the project in question. Also, in this case F_{ij} became F_i.

Since F_i was constant for all students in a grade range, then all students in the population had the same chance of being in the sample. Since the sampling was such that F_i was constant, that constant became, in effect, an overall sampling fraction that was applicable to the entire population. Three constant values of F were determined, one for each of the three grade ranges. These values of F were determined with an expectation that a sample of at least 4,000 students in each grade range would be obtained. Then, for each grade-level range, values of f_i (within project sampling fractions) were computed as follows:

$$f_i = \frac{F}{p_i}$$

Where,

F is the overall sampling fraction;

P_i, as explained above, is the probability which the ith project had of being in the sample; and

f_i is the sampling fraction applied to the ith project in the sample.

In general, each project in the sample presented a different sampling problem, owing to varying numbers and sizes of schools and grades at each school. In projects where all schools were included in the sample, the values of f_i, as calculated above, were directly applicable to students within all schools in the project. In projects where a sample of schools was selected, the within-project sampling fractions had to be resolved into within-school sampling fractions using a probability formula similar to the one above. When a sample of schools was selected, the schools were stratified, and one school was selected from each stratum. Frequently, a stratum contained one school; e.g., all students in a grade might have been attending the same school. Such a school had a probability equal to one of being in the sample. Generally, for any given grade, there were at least two schools in the sample, unless all students in the grade went to the same school.

The actual sample of students was drawn at the start of the school year. The sizes of the samples chosen allowed for attrition expected during the school year. In some projects, the attrition rate was expected to be larger than others. Therefore, project directors were contacted before the actual fall visits and asked to supply estimates by grade level range of the magnitude of attrition rate in that setting. These estimates were used in the local site sampling of students to help ensure that desired sample sizes would be achieved.

The types of information gathered from students varied with the grade-level range and time of year. All sampled students in grades 4-12 received Parts I and II of the Student Questionnaire during both the fall and spring data collection periods. These sections gathered information about the students' participation in project activities and ratings of attitude toward school, Indian identification and pride, academic self-concept, global self-esteem and related dimensions. These sections were used on two occasions so that pre- and post-school year shifts in these dimensions could be measured and correlated with the students' reported participation in Part A Program activities. Thus, those students reporting little contact with Program activities became a natural comparison group with those reporting relatively moderate or more extensive contact with Part A.

(g) Parents of Selected Part A Participants. A stratified random subsample of the parents of participating students who were given the student questionnaires during the fall visits were interviewed in the spring. Parents were selected at random by Development Associates from the roster of students surveyed in the fall. The number of parents selected for interview varied from site to site, approximately in proportion to the number of students surveyed. On the average, the goal was to interview 18 parents per project, and overall an average of 13 completed interviews (72%) per project were obtained. At each site, the list of names of selected parents and alternates was provided to the project director, together with a draft letter requesting an interview. The alternate names were used only if problems were encountered which made it impossible to interview a parent on the primary list. Every effort was made to contact, schedule, and interview all parents on the primary list, regardless of whether the student was surveyed again in the spring. All parent interviews were completed while the data collection team was on site.

(h) School Principals. The principals of the schools in the sample were interviewed during the spring data collection period. The Principal Interview Guide focused on: (a) the effects of the project in the school, and (b) the function of project activities and their coordination with instructional and other school activities. The goal was to contact the principal of every school in the sample. The average number of principals surveyed per project was four.

(i) Regular Classroom Teachers. Regular classroom teachers of the Indian/Native students selected from schools where students were surveyed were administered the Teacher Questionnaire in the spring. At the elementary school level, the questionnaire was given to the regular classroom teachers of the Indian/Native students in the sample who had been in the school system for at least two years (i.e., then in at least their third year). At the junior and senior high school levels, questionnaires were given to the mathematics, English, and social studies teachers of the selected Indian/Native students who also had been in the school system for at least two years. In total, 11 teachers per project, or a total of 1,307 teachers, were contacted.

(j) Tutors of Indian Students. During the fall site visit all tutors of Indian students supported through the Part A Program were asked to complete questionnaires describing their characteristics (e.g. sex, experience, number of students served) and characteristics of each of the Indian students they tutored (e.g. grade level, proficiency in reading, math and other subjects, interest in school, school conduct, amount of tutoring). Project directors were also given a package of these questionnaires and asked to see that they were completed during the year as new tutors or students began to participate in the Program. Project directors were also given a package of Post-Tutorial Follow-Up forms and asked that a form be completed for each student at the time the student stopped receiving tutoring or at the time of the study's spring site visit, which ever came first. During the period between the fall and spring site visits, project directors were reminded several times by letter and telephone to have these forms completed as appropriate. In total, full data was obtained from 329 tutors and 3526 Indian students.

(k) Cohorts of Post High School Students. In order to assess trends in high school completion and post-secondary school activities, a sample of five Indian high school sophomores in each of the following years was selected from each of the visited projects: 1970-71, 1972-72, 1974-75, 1976-77, 1978-79. Indian students were identified by school district staff and the students in each cohort were selected at random. Information about those selected was then gathered from school records, school staff, family, friends or other available sources. Several projects were in districts without high schools; these were not included in this aspect of the study. In other districts, where there were five or fewer Indian high school sophomores, all were included. Overall, 2,098 former students were included, or an average of over 18 students per sampled district.

4. Selection of Public School Districts for the Alternative Resources Sample

The population for the Alternative Resources sample (3,177 districts) included all eligible public school districts (i.e., those with ten or more American Indian or Alaska Native students and those located in Alaska, California or Oklahoma) except tribally-controlled schools which were not part of this study. The method of sampling the part of the population of 3,177 districts which were not included in the survey population for the Local Project Impact Evaluation Study began by defining four major strata based on the number of American Indian or Alaska Native students in each LEA. Optimum allocation of the sample to these four size strata was not possible, since standard deviations of important parameters within strata were unknown. However, general experience with probability sampling suggested allocating the sample to the size strata in proportion to the total number of students in each, with an upward adjustment in the size of the sample from the two strata having the smallest number of students. That is, compared to the optimum allocation, an allocation of the sample in proportion to the number of students was expected to undersample the first two strata (those with LEAs having the smallest number of students), particularly the first one.

Within each of the four size strata, the projects were arranged by state within the 12 geocultural regions described previously. A systematic random sample of districts was selected with equal probability within each of the first three size strata. The last, or fourth, stratum (LEAs with a large number of students) was treated as a special case, because the allocation called for a sample of 12 LEAs from a total of 14 within that stratum. The ten largest were selected with probability equal to 1. Two of the four smallest in this stratum were in California, and two were in Oklahoma. One LEA was selected at random from the two in California, and one from the two in Oklahoma. In summary, 108 districts were chosen, 98 by using systematic random sampling with equal probabilities of selection within strata, and ten with probability of certainty.

The selected school districts were administered either: (a) the Excluded Projects Telephone Survey Questionnaire, for LEAs receiving Part A grants but excluded from the sampling frame for the impact study, or (b) the Non-Funded

Districts Telephone Survey Questionnaire, for school districts not receiving Part A grants. Each version of the form was compatible with the other, and with similar data gathered from the impact study sites. In each district, the relevant administrator was contacted for costs and services/activities information. Typically, this was the district's federal program coordinator. Telephone interviewing was chosen as the most cost-effective way to contact these projects.

Weighting Factors Used to Make Data Representative

Certain data presented in this study have been weighted either to be statistically representative of the population of (a) Part A projects or (b) individuals from which a sampling unit was selected. These weights also have been adjusted when necessary to reflect data collection instrument non-response.

Whether data of a particular kind needed to be weighted was related primarily to whether sampling within projects was involved. As explained above, the sample of 115 site visited projects was not selected with equal probabilities and it was clear that "project data" needed to be weighted, owing to the wide range in the probabilities of selection. "Project data" refers to data where there was no sampling within projects, such as data obtained from the project director about his/her own characteristics or about the project as a whole. "Project data" and "Within project data" will be discussed separately below. Of the ten sources of data presented earlier, the first five did not involve sampling within projects, with the exception of the sampling of parent committee members. The last five all involved sampling within projects, except for some data in a few of the smallest projects where all eligible respondents were included in the survey.

Project data fell into one of two major categories with regard to weighting. The first consisted of data where use of reciprocals of probabilities of selection as weights is appropriate with regard to both random sampling error and bias. Such data are quantitative data such as budget data, and variables which can range in value from zero (or a small amount) to an amount that is related to the size of project. For such a variable, its variance among large projects was much greater than its variance among small projects.

Weights for data in the first category were referred to in this study as the W_1 set of weights. These weights were the reciprocals of the probabilities which the projects had of being selected, multiplied by a constant that made the sum of the weights equal to 865, the total number of projects in the survey population. In a probability or sampling sense, the W_1 weights provide unbiased estimates. Also, for variables in the first category, the W_1 weights are most appropriate in the interest of minimizing the standard error of the estimates, or, conversely, providing optimal precision.

Most of the project data fell in the second category. This category included variables where the variance of the variable had little if any relation to size of project, and its variance among large projects was roughly the same as its variance among small projects. Attribute or "yes-no" type of data are included in this category, such as types of programs sponsored by a project, or certain characteristics of a project director. If the W_1 weights were applied to data in this category, the standard errors of estimates would be too large. Not weighting such data would provide estimates with much lower sampling error; however, the potential for bias in the estimates was too large to ignore.

Thus, a second set of weights, referred to as W_2, was prepared with an objective of minimizing the mean square errors of the estimates, that is the combined measure of bias and random sampling error. The W_2 weights were formed by adding a constant to each W_1 weight and scaling them so that the weights would add to 865. The constant was chosen so that the maximum W_2 weight within a region would not be more than about four times larger than the smallest weight within the region.

Data from parent committees were regarded as project data, even though some data were obtained from a sample of individual members of a committee. In this case, the committee rather than a committee member was treated as the unit of analysis. In other words, if data from all parent committees in the population of 865 projects had been obtained, it was assumed that committees would be the tabulation units. All committees would then have the same weight, regardless of their size. Under this concept of the parameters being estimated and considering the kind of data involved, the W_2 weights were applied as follows. If there were data from n members of a committee, the weight for each of the n was W_2/n, where W_2 was the weight for the project involved. Then, the sum of the weights for the n members was equal to W_2 and the sum of all weights totalled 865, the total number of projects, rather than a population total number of committee members. Tribal/Committee leader data consisted of two or three respondents from some projects, although a relatively small number of projects had more than one tribal leader respondent. As in the case of committee members, weights were assigned equally to all respondents from the same project, so that the sum of the weights for respondents in the project was equal to the project's W_2 weight.

Within-Project Data. A major part of the within project data consisted of data from students. Sampling fractions for sampling students within projects were calculated to give every student, in the population of 865 projects, an equal chance of being in the sample. For various practical reasons, this was not completely accomplished, and question then arose whether the departures from equal probability were sufficient so that weighting would be advisable. To answer that question, a set of weights (applicable to student data collected in the spring and based on reciprocals of sampling fractions) was calculated and studied. Also, some data were weighted and the results were compared with corresponding results when no weighting was done. A conclusion was reached that differences between weighted and unweighted results would be trivial or unimportant. Moreover, when analytical processes were complicated, the weighting of individual data added much to the burden of processing. Thus, a decision was reached to treat the student data as self-weighted.

Since the numbers of parents in the sample from project to project were approximately proportional to the numbers of students in the sample, it follows that weighting parent data was unnecessary.

Two other sources of within-project data were principals and school teachers. These data were also approximately self-weighted and were not weighted because it was determined that weighting would not have improved the results by an appreciable amount, if at all.

For the post-high school student sample, an upper limit of 25 cases per project was placed on the sample. This meant that large projects were somewhat underrepresented, even though large projects had higher probabilities of being in the sample. Weights by projects were calculated and studied. A simple plan for weighting was regarded as adequate. Data for sample students in the 18 largest projects were therefore given a weight of 2 and data for all other students in the other projects received a weight of 1.

Adjustment for Non-Response. When entire instruments for one or more of the 115 projects were missing, the weights (either the W_1 or W_2 weights, whichever applied) were adjusted within regions so the total weight for a region remained unchanged. For example, suppose there were 11 sample projects in a region and the data collection instrument for one project was missing. Assume the sum of the weights for all eleven projects is 95.0 and the sum of the weights for the ten projects with data is 87.6. The ten weights would be adjusted upward by the factor 95.0/87.6 = 1.08. In the event a region was small (say, 5 or 6 projects) and data were missing for one or more projects in it, the region would have been combined with another region so the adjustment factor would not be large and the adjustment would be spread over several projects.

Weighting of Data from the Sample for the Study of Alternative Resources

For sampling purposes, there were four subpopulations of the population to which the Alternative Resources Study applied. The four subpopulations are shown in Table 2-5; within the second subpopulation the four strata described in section 3d are shown. The first subpopulation is the population of 865 districts that was defined for the Impact Evaluation Study. The W_1 set of weights described above is applicable to the sample data from this subpopulation. In the second subpopulation, equal probabilities of selection were used within strata. The stratum weights shown in Table 2-5 expand the sample from this subpopulation to estimates of totals for this subpopulation.

The other two subpopulations are small and the weights shown in Table 2-5 also expand sample data to estimates of totals for these two subpopulations. Thus, estimates of totals for each of the four subpopulations were added together to obtain estimates for the entire population.

TABLE 2-5

PATTERNS OF WEIGHTS APPLIED TO SUBPOPULATIONS OF THE ALTERNATIVE RESOURCES SUBSTUDY

Subpopulation	Number of Districts in Population Having Indian Students	Number of Districts Included In Sample	Assigned Weight
a. Projects funded for three years with more than 30 Indian students	865	119	W_1*
b. Non-funded districts (N=2179; 449 without Indian students)	1730	100	By stratum (number of Indian students):
Four Strata	855	20	42.75
	719	43	16.72
	144	25	5.76
	12	12	1.00
c. Projects funded in 1979 and 1980, and not in 1981	81	5	Four with weight=20.0; one with weight=1.0 (which was sampled with probability equal to 1 due to its large size)
d. Projects funded with fewer than 30 Indian students	52	3	17.33

*An unbiased weighting factor; see the project data weighting discussion for a full explanation.

Procedures Used for Dealing With Item Nonresponse

The weighting approaches described above have dealt with the situation where entire questionnaires were completed and needed to be properly (a) weighted to reflect a larger population, or (b) weighted, then adjusted to compensate for respondent non-response, enroute to making national-level estimates and correlational use of the obtained data.

In addition, there were instances of item non-response which occurred across the various respondents and types of data collection instruments used in the study. A review of all items having such non-response was made during the data management phase of the study. No consistent or systematic pattern of item non-response seemed to exist. No attempt therefore was made to impute data values for those items to the projects, and to the various respondents which were included in the sample and who supplied less than 100 percent completion of the information sought from them.

Although several alternative methods exist in the field for making such imputation efforts (such as: expanding the weights assigned to respondents on given items to reflect the proportion of non-respondents), it was felt that any such method would be relatively imprecise. Overall, item non-response represented a relatively small fraction of the data. As such, it was judged that adjustments would not contribute materially to changing the estimates reported or to improving the precision of the findings presented.

With that as a guideline, all statistical tables and the discussion of the results contained in them clearly present the number of unweighted and weighted cases on which findings are based. Similarly, findings presented on a subset of all respondents indicate the size of that subset, for the sake of making the findings as lucid as possible. To make tables more readable, when all variables within the given table are based on only slightly varying numbers of respondents (i.e., within 10 percent of the maximum number) the range of cases is provided as a footnote to the table.

Representativeness of the Student Sample.

One of the most difficult aspects of the study was the construction of the student sample. When the data collection plan was being developed, there was considerable uncertainty concerning the size of the relevant student population. The school districts included in the sample were contacted prior to site visits and were requested to provide estimates of the number of Indian students in grades 4-12 who were in schools and grade levels where they could be receiving Part A services in the coming year. Based on the responses of districts, it was estimated that there were approximately 50,000 eligible students in grades 4-12 in the 119 selected districts.

It was recognized, however, that this estimate of eligible students was imprecise because it assumed that district administrators: 1) could accurately predict the number of Indian students; 2) would provide unbiased estimates of those numbers to an evaluation contractor working for the federal government; and 3) knew which schools and grade levels would be receiving Part A services. Because of the imprecision of the population estimate, it was decided that probability sampling would be done using sampling fractions rather than specific target sample sizes. Thus, for example, data collectors were told to have 1/3 of all Indian students in a school complete questionnaires rather than that 40 students should do so. In this way, even if the estimates of eligible Indian students were incorrect, the probabilities of selection for all students would remain approximately equal and still adhere to the original sampling design.

The desired sample size was 15,000 students. Because it seemed possible that the population estimate of 50,000 eligible students was positively biased, the sampling fractions were adjusted upward by 15-20 percent to assure a sample of at least 15,000 students. During data collection, additional information was obtained concerning the number of Part A-eligible students in the selected projects. This information confirmed that the initial estimate of eligible students was too large, and indicated that the actual total number of such students was actually about 41,000. The sampling fractions which were used thus should have produced a sample of slightly less than 15,000 students.

The actual number of questionnaires completed in the fall data collection was 13,538. This number was inflated somewhat by 20 sites from which approximately 1500 more questionnaires were received than were requested based on the stipulated sampling fraction. In one site, for example, school district officials requested that all Indian students be included when only a sample was needed. Analyses were subsequently performed to determine if the inclusion of these additional students would significantly affect the student results. The analyses showed no major effects, so the students were included in the analyses. Based on the best available estimates, therefore, the loss rate for fall student questionnaires was in the range of 15-20 percent. Some of that loss can be attributed to the 4 of 119 sites from which no student data were received. Approximately 400 student questionnaires were expected from those sites. In addition, approximately 100 questionnaires were received which were unusable because they were incorrectly or only minimally completed. These questionnaires covered a variety of projects, schools and grades. The remaining data loss can be attributed to students who either: 1) were not attending school on the day of testing; or 2) were in school but failed to attend the survey session.

It is reasonable to conjecture that the data loss from the student sample could have biased the results from the student questionnaires. That is, it could be hypothesized that the students who did not complete questionnaires had generally poorer attendance, poorer academic achievement, and relatively less positive attitudes toward school and themselves than students who did complete questionnaires. If such bias existed, however, it should not have had a major effect on the study results. Assuming a 15 percent loss rate, even if the nonrespondents were a full standard deviation below the respondents on a given measure (an unlikely amount of bias), the bias in the study mean would have equaled .15 of a standard deviation. Such differences would not have changed any of the major study conclusions.

Accuracy of Program Characteristic Estimates

The weighting factors used in this study permit estimation of parameters which portray project, student and other data source characteristics. In addition, the use of sampling errors establishes how much confidence can be placed in a particular estimate for planning purposes. Thus, it expresses how likely it is that a given point estimate represents the actual level that exists in the population of Part A projects to which the present study's findings can be generalized.

Appendix 2 therefore contains the standard errors associated with using study sample data to estimate those program characteristics which were selected as being particularly interesting to policymakers and planners. Some guidelines for interpreting these standard errors and how they were computed are also included in the Appendix.

Instrument Development

Instruments contained both specially-developed items and those proven items or topics adapted from past, relevant studies. Indian educators representing many tribes in various parts of the U.S. were identified and selected for their diverse kinds of experience and expertise, and asked to help in the development and refinement of these instruments. The draft instruments initially developed by the study staff were mailed to these individuals prior to field testing. Upon review of the returned comments, revisions were made and field tests at various projects were scheduled. The comments and suggestions of the members of the study Technical Advisory Panel and the study project officer were also solicited and used throughout the development of the instruments and data collection procedures.

The instruments were field tested in three cycles with several Part A projects being visited during each cycle. The instruments and administration procedures were modified following each field testing cycle. Thus, additional modifications and refinements were made based upon the results of administering the forms, as well as from critical reviews by project and school district staff at each site visited. A diverse group of projects was selected and visited, representing a variety of activity orientations, project sizes, and locations (i.e., rural, urban, village, reservation). After the final round of field testing, the revised forms were again sent to the study's Indian consultants for final review and comments.

Specifically, a total of 33 discrete instruments were developed for the study. (See Table 2-6 for their listing and the number of respondents to each.) During the fall data collection period, three of the nine forms which were used were structured interviews; two were self-administered questionnaires; and four were forms which were used to record project and district descriptive and other data from files and records. For the spring data collection, three of the 24 forms which were used were structured interviews; nine were self-administered questionnaires; ten were forms for recording project, district, and student related data, including data on project and student tutorial activities; one form was used for telephone interviews during the Alternative Resources Study; and one form was based on composite indices developed from other forms.

TABLE 2-6

INDIAN EDUCATION IMPACT EVALUATION STUDY INSTRUMENTS

FALL INSTRUMENTS	Respondents
LEA Administrator Interview Guide	154
Project Director/Coordinator Interview Guide	114
Parent Committee Chairperson Interview Guide	114
Project Overview Questionnaire	114
Program Components	
I. General Project Information	107
II. Cultural Activities Component	74
III. Counseling Program Component	58
IV. Home-School Coordination Component	51
V. Parental Cost Component	27
VI. Tutorial/Special Academic Program Component	90
Student Questionnaire, Parts I and II, Grades 4-6	5393
Student Questionnaire, Parts I-IV, Grades 7-12	8145
Post High School Student Follow-up Survey	2098
Document Review Guide	115
Student Attendance Section (of Document Review Guide)	8376 students
SPRING INSTRUMENTS	
LEA Administrator Interview Guide	109
Project Director/Coordinator Questionnaire	108
Tutor Characteristics	329
Characteristics of Tutored Students/Post Tutorial	3528
Project Staff Questionnaire	413
Parent Committee Questionnaire	290
Parent Interview Guide	1546

TABLE 2-6 (continued)

Student Questionnaire, Grades 4-6	5201
Student Questionnaire, Grades 7-12	7369
Principal Questionnaire	450
Teacher Questionnaire	1307
Indian Community/Tribal Leader Interview Guide	102
Student Information Form (Reading & Math Test Scores)	6425 students
District Reading and Math Test Scores Form	46
Total Public School Enrollment Levels by Grade & Year	106
District Indian Enrollment Levels Form	105
Field Staff Summary Form (not being ADP processed as is)	104
Field Staff Summary Form Abstract (Part of Section C only)	104
Field Staff Summary Form (Items 5A-9L)	104
Equal Employment Abstract Form	101
Alternate Resources Form (for non-Part A funded projects)	89
Alternate Resources Form (for Part A funded projects)	19
Cultural Overview Summary Form (Rescoring of Project Overview Cultural Section data)	74
School Climate Indices Scoring Form	115

Field Staff Identification, Training, and Data Collection Procedures

To collect the required data, American Indian and Alaska Native field staff were identified and selected during July through September, 1981. To the extent possible, individuals were selected who resided in the areas in which they were to make site visits and collect data. (Familiarity, but no formal relationship, with the area, the districts, and the people with whom they would be working was considered highly advantageous.)

All field staff were brought together for two one-week training sessions. The first session took place in early October 1981, one week prior to the fall data collection period. The second session took place during the second week in March 1982, one week prior to the spring data collection period. Both sessions took place at the University of Oklahoma in Norman, courtesy of the American Indian Institute.

The data collectors were trained thoroughly in both qualitative and quantitative data collection concepts, techniques, and procedures. The training during each session dealt with the specific instruments and data collection requirements for each data collection period. The training also included procedures for onsite protocols, scheduling, interviewing techniques, and qualitative inquiry techniques. The procedures and routines used by the field staff were designed to enhance consistency and objectivity as well as to minimize deviations of procedure.

The onsite visits ranged from two days to a maximum of six days per site. The fall data collection involved fewer days per site than the spring data collection, which included parent interviews as well as the qualitative inquiry of selected sites. Efforts were also made during the spring visits to follow-up on missing data from the fall.

Local assistants were hired by the team leader at those sites where it was deemed necessary because of the heavy data collection burden. These individuals primarily collected file and records data. In some instances, they also served as interpreters during the parent interviews at those locations where parents spoke their native languages. In many of the sites, project and district staffs assisted in scheduling and facilitating data collection. The cooperation and assistance of the district and project staffs was extremely high in all but a very few instances.

The field data collection staff were responsible for the collection of all data requirements at 115 Part A projects in 29 states. The data collection was divided into two time periods in order to minimize and spread out the burden, as well as to provide the opportunity to collect pre- and post-data (i.e., fall and spring) from Indian students.

In addition to interviews with selected respondents, data from district, school, and project records were collected regarding Indian student attendance, achievement scores, and enrollment levels of those Indian students surveyed. Data were collected relative to the extent of the students' participation in the Part A Program for the current and previous school years, as well as their participation in the subsidized lunch program (the latter as a measure of socioeconomic status). Data on tutored students were collected in those projects that had a tutorial program, and a thorough follow-up of missing fall data was also conducted during the spring data collection period.

Also administered during the spring were:

- A Field Staff Summary Form, completed by a member of the data collection team at each site visited;
- A qualitative inquiry at 31 selected sites, completed by a member of the data collection team;
- A School District Employment Summary Form for existing staffing and employment data on the districts in the sample, completed by a study team staff member;
- The Alternative Resources Study of 106 public school districts eligible for but not receiving Part A monies, conducted by a Development Associates staff member through telephone interviews; and
- The Small Projects Study of projects of $5,000 or less and having fewer than 30 Indian students, including document reviews, telephone interviews, and visits to three sites.

The Field Staff Summary Form was developed and given to each team as an method of filling in the data gaps that came to light after the fall visits. This form provided the field data collectors with a format for recording their observations and insights for each site visited during the spring, and also for outlining any deviations from expected procedures or difficulties in data collection encountered. This information was useful in helping to form a more complete picture of the overall Part A Program, and in interpreting data from many sites.

The fall qualitative inquiry focused on identifying topics relating to the impact of Part A which were either not addressed or only weakly addressed by the survey instruments and, in general, by the study's quantitative research methods. It provided information for determining relevant focal topics for qualitative data collection in the spring, and also provided other data needed during spring data collection. In addition, field staff were instructed to remain alert to site phenomena which were relevant to Part A activities and impacts, but did not appear to be addressed by study instruments. In the spring, qualitative inquiries were conducted on selected topics for an identified subgroup of 31 of the 115 projects in the sample. Data collection was carried out by the same field staff who administered the structured survey instruments. Spring sites were grouped according to relevant research questions.

Data Processing and Management

By the end of the 1982 school year, all site visits were completed and the majority of data was logged-in. Missing data were determined, and attempts were made to collect such information during the summer. Processing of the data collected in the fall was completed in January, and processing began again in April as the spring data were received. Each completed questionnaire was logged-in by site, checked, and coded. Coding manuals were developed for each data collection period, together with response categories for each open-ended item in the interview guides and questionnaires.

All interview, telephone, and data recording instruments were coded and edited by trained personel. All instruments were reviewed at several levels for incomplete or unreadable responses and inaccurate, out-of-range, implausible, or logically inconsistent entries. All manual editing and insertion of updated information was done by trained coders, under supervision. All coding was conducted under formal, ongoing supervision and periodic review.

Open-ended responses were coded after research analysts versed in Indian education issues reviewed responses and developed coding frames. This was done for all relevant open-ended interview items. Coding frames were reviewed for validity, uniformity, and usability, and were revised as needed before given to coders. Coders were trained in the use of these manuals before beginning full-scale work.

There were three instruments that included various open-ended questions which represented the thoughts, observations, and feelings of the adult members of the Indian or Native community in which the project and school district were located. These were: (1) parent interview forms, (2) the tribal/community leader interview forms, and (3) the parent committee questionnaire. It was deemed important that the interpretation and coding of the individual answers to these open-ended questions be conducted by American Indian/Alaska Native coders who were familiar with the Part A Program, and the possible subtleties in some of the answers given from an Indian perspective. Thus, arrangements were made with the Center for Indian Education at Arizona State University to have Indian graduate students code these instruments. This was done under the supervision of the study's deputy project director.

Following manual edit and coding procedures, all forms were grouped by type and turned over to a keypunching facility (Mailing List Systems, Inc.) accompanied by detailed keypunching instructions for each form. All instruments were designed for direct keypunching or key-to-tape data entry. In view of the diversity of survey item formats and number of data collection instruments, 100 percent independent verification by the keypunching facility was performed.

Computer editing was conducted by using specific editing instructions devised for each type of form. This generally consisted of a series of checks for completeness, accuracy, internal consistency, and out-of-range values. Several sets of editing checks were made on each file, and, after each, analysts and research assistants reviewed the types of issues which needed resolution. After several such computer file checks, each file was considered fully usable for composite index development, correlational analyses and other analytic purposes.

Data Analytic Techniques Used

The actual analyses used in this study began with traditional approaches to understanding the descriptive characteristics of variables, and the current levels at which Indian students and Part A projects were operating. Analysts then proceeded to use correlational and more sophisticated analytic procedures in an attempt to understand the interrelationships among those variables, and the extent to which certain subsets of variables were associated with impact or indicators of project operations. Analyses were conducted with several types of respondents, to triangulate findings and thus attempt to have a pattern converge. A series of cross-break variables was also used at several analytic levels to both understand relationships, and to gauge if "differential impact" occurred, i.e., to see if project operations were relatively more effective in some settings and with certain students than with others (see Table 2-7 for a list of these cross-break variables). The "practical significance" of the findings was also considered. That is, the data were reviewed to ascertain if their relationships or differences were large enough to be of practical import.

Throughout, a key unit of analysis was the Part A Indian education project, as the entity which was operating a funded program. However, it also was recognized that other types of key data sources, such as students and parents, were important in their own right as units of analysis.

The descriptive techniques used in the study included most of the widely used approaches, including: frequency and percentage distributions, means, medians, standard deviations. Cross-tabulations, correlation coefficients, and factor analyses were used to establish if and how certain variables were related to each other. Other techniques were less quantitative, and represented tabulations of predominant topics mentioned in narrative responses by respondents, so that prevalent themes could be identified, and the range of discrepancy (i.e., how many respondents did not share a central opinion) could be determined.

Some of the areas of investigation were primarily examined using descriptive techniques, due to the topics with which they dealt and the levels of measurement suitable for dealing with such topics. These were the following:

- Project characteristics and overview summaries of local project operations and emphases;
- Needs and objectives of local projects; assessments of the appropriateness of project emphases and activities;
- Descriptions of cultural programming and activities; appropriateness of cultural activities;
- Tutorial and related activities directed toward enhancing the basic academic skills of Indian students; tutor, student and program characteristics;
- Parental involvement and relations with the Indian community;
- Perceptions of parents, community members and tribal leaders of project operations and effectiveness;
- Project representatives' perceptions of the Office of Indian Education, the types of changes in Part A rules, regulations and legislation which appeared useful to them, and preferences for various approaches to determining student eligibility for services; and
- Levels and longitudinal trends in employment of Indians and Alaska Natives in various public school positions (administrators, principals, teachers, teacher aides, and other personnel).

A series of cross-break variables was used to detect between-group differences in these topic areas (see Table 2-7). Project and student level data were routinely analyzed in terms of these variables, although results of these analyses are provided only where meaningful.

In general, analytic techniques were used in this study to establish relationships between program variables and measures of impact on a variety of dimensions or several data sources. Such techniques were necessary in view of the Part A Program's fairly small and diverse mix of services in some districts. The array of techniques included the following:

- Factor analyses and psychometric analyses, to establish the best measures of particular dimensions, and to confirm interrelationships across a set of predictor variables;
- Stepwise and hierarchical multiple regression, to ascertain the relative importance and best subset of variables which were related to measures of tutoring or attendance levels, relying on conceptual models of what predictors should first enter the prediction process;

TABLE 2-7

CROSS-BREAK VARIABLES USED IN DESCRIPTIVE AND IMPACT ANALYSES

A. Project Setting

1. Percentage of Indian students (density) in district (less than 5%; 5.1-70%; over 70%)

2. Residence of most Indians in district (on or near reservation, other rural, urban/non-metropolitan, metropolitan area)

3. More than half of project participants are of the same tribe (yes/no); tribal homogeneity measure

4. Geocultural regions (12 categories)

5. TAC regions (5 categories)

B. Project Size

1. Number of students in district
2. Number of Indian students in district
3. Number of participants in local program
4. Part A funding level

C. Project Emphases and Activities

1. Project services (whether or not stress on: culture, counseling, home-school, or tutoring)

2. Percentage of dollars coming from Title IV vs. other sources

3. Project goals (whether or not stress on: academic basic skills, dropout and absenteeism, counseling and attitudes toward school, cultural components, students' self-concept, drug and alcohol abuse education, medical/dental/financial support, increased parent/community involvement, or in-service training).

D. Student-Level Variables

1. Length of time in program
2. Amount of help (extent received) from program
3. Type of help received (program component)
4. Grade level (or grade range of: 4-6, 7-9, 10-12); 4-6 and 7-12 also used
5. Age
6. Sex
7. Home language use
8. Pride in being an Indian
9. Perceived importance of Indian topics
10. Socioeconomic status (whether or not on free or subsidized lunch)

- Path analysis causal modeling approaches, which permitted the assessment of the relative direct and indirect contributions of project activities and similar variables to various important measures;

- General linear modeling multivariate approaches (similar to multivariate analyses of variance techniques) which were used to simultaneously assess relationships between a series of project and contextual factors, and the two dependent measures of reading and math standardized test scores, while controlling for project participant-nonparticipant differences; and

- Meta-analytic techniques which used Indian-non-Indian test score comparisons (converted to "effect sizes" in z-score format) so that trend analyses could be synthesized across a series of historical time periods.

Also, as is true in many evaluations, certain other techniques were performed which did not provide any more insights than already provided by more straightforward approaches, or which were not useful due to various measurement and design limitations. For example, the study employed canonical correlation techniques to see if a relationship existed between a set of cultural program characteristics and a set of student achievement measures, and stepwise discriminant function techniques to better determine if levels of patterns of student attitudinal scores were more characteristic of program participants than non-participants. Although sometimes useful, in this study these techniques did not improve upon the utility of impact evidence obtained with less complex approaches.

Limitations of the Methodology

Finally, this chapter should note that there were a number of factors relating to the Part A Program and this evaluation which limited the ability to draw unambiguous conclusions from the Study's results. Among the more important are:

- The Part A Program is just one of many special programs which serve Indian students. Chapter 1, Title VII, Johnson O'Malley, and other federal programs all provide special services to Indians, and it is virtually impossible to separate the effects of these various programs from each other and from the regular school program.

- Part A projects are relatively small, and they provide a diverse mix of program services. Thus, impacts may be quite particularistic and may be hidden by grouped data or the application of general criteria.

- The evaluation was conducted many years after most Part A projects were initiated. Many of the greatest impacts of Part A projects may have occurred prior to the evaluation, and projects may simply be sustaining earlier gains. The lack of pre-Part A baseline data on many variables made interpretation of such effects problematic.

- The evaluation was limited in its time frame for collecting data. Fall and spring measures were collected on a number of student measures, but the average time between measurements was only approximately six months. This may not have been sufficient time for impacts to occur on some student measures (e.g., attitudes and tutoring).

- It was difficult to classify students based on their levels of participation in Part A activities. Some students were not aware of which supplemental activities were related to Part A, and project staff sometimes had difficulties in specifying which students had taken part in open programs such as cultural assemblies. In addition, some project activities were provided to the school or community as a whole, so that the subject group for such activities was difficult to specify. The effectiveness of staff and personnel in providing these services, or the responsiveness of students to these services, also could not be directly assessed.

- Some of the impact measures had not been previously normed on Indian populations. The evaluation was thus partially exploratory in nature, providing new evidence on response characteristics of Indian students.

Some of these limitations are particular to this evaluation, but many are generic to educational evaluations. Overlap of programs, diversity of objectives, and lack of baseline information are issues that confront many educational evaluators. Despite these limitations, however, the evaluation is believed to have provided reasonably accurate descriptions and insights into the Part A Indian Education Program and its results. Chapter 3, which follows, provides background of a historical and legal sort for the program results which were found.

CHAPTER 3: BACKGROUND AND OVERVIEW OF THE FEDERAL PROGRAM

Introduction

The Indian Education Act of 1972 was created following an extensive congressional study which concluded that Indian and Alaska Native students had serious educational needs and that these needs were different from other students. Congress concluded that special programs to help Indian students in school were desirable, and the Part A Program for Indian students in the public schools was estasblished for this purpose.[1]

The Part A Program is one of five parts of the Indian Education Act. It is designated as a formula grant program for local education agencies (LEAs). It provides financial assistance to LEAs to develop and carry out elementary and secondary school programs specially designed to meet the special educational and culturally related academic needs of Indian students. School districts with Indian or Alaska Native students are eligible for these funds.

The regulations governing the Part A Program are purposely broad and cover a wide variety of allowable activities. In specifying the existence of culturally related educational needs, the Program acknowledges that Indian and Alaska Native students, in many cases, have different cultural and linguistic traits which require the development and use of special educational strategies or environments for optimum teaching and learning. The Part A-supported activities must be supplementary to existing educational programs in the schools, and local projects typically provide programs at all grade levels. Since projects are prohibited from supplementing activities which would otherwise be available for Indian children from local, state or other federal funds, provision of primary academic and/or basic educational programs is beyond their scope. Typically, the projects provide tutoring in basic skill areas, instruction and activities related to Indian culture and current issues, counseling services, home-school liaison services, and financial assistance to needy students for school materials. Projects also provide the opportunity for Indian parents and Indian community and tribal members to become involved in the public schools -- often for the first time.

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[1] In addition to public schools, the Part A Program provides formula grants to BIA-contracted and tribally-operated schools and discretionary grants to Indian-controlled schools located on or near a reservation. The number of such grants is, however, much smaller than the number awarded to public schools. This evaluation focused only on that portion of the Part A Program serving public schools.

Historical Setting[2]

The relationship of the federal government and the American Indian has changed many times in the past 200 years. Since the early development of the United States, it has been official policy for the federal government to relate to Indian people on a nation-to-nation basis. Although treated as sovereign, Indian nations were subject to legal control through treaties with the federal government. By 1870, the period of treaty making had ended; encroachment onto Indian land escalated, and federal domination grew. There began a resettlement period as entire tribes were moved from their ancestral lands to regions considered unsuited for other use. Over time, the relationship between the federal government and Indian nations had become one of subordinate to superordinate that culminated in the federal government gaining major political and economic control.

In 1824, the Bureau of Indian Affairs (BIA) was created within the then-War Department to provide "the direction and management of all Indian affairs and of all matters arising out of the Indian relations." In 1849, the BIA was transferred to its present location within the Department of Interior. The agency soon was perceived as caretaker of the government trust, and exhibited a strong paternalistic attitude which persisted until recently.

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[2] For a comprehensive history of Indian education, see pages 21-85 of the Report on Indian Education, Task Force Five, American Indian Policy Review Commission (1976). Also see Szasz, Education and the American Indian: The road to self-determination, 1928-1973 (1974). A short history is given in the Senate report, Indian Education: A national tragedy - A national challenge (1969). A listing of the major legislation affecting the education of American Indians is found in Appendix 1 of this report.

Education became a major function of the BIA in 1870, when Congress first appropriated funds on a regular basis to provide educational services for certain Indian students in the United States. Prior to this, educational funding had been limited to treaty obligations and to a Civilization Fund. Currently, the Snyder Act of 1921 (25 U.S. C. B) provides the basic authority under which the BIA provides educational and other services to federally recognized Indians. These services include direct operation of schools, support of tribally-operated schools, and financial assistance to public schools serving Indian children. The Bureau also assists Indian adults by providing financial assistance to students for higher education studies, support for some tribally operated post-secondary institutions, and by offering special programs in many communities.

With passage of the Johnson O'Malley Act in 1934 and key amendments in 1936, the Secretary of Interior was empowered to expend federal funds through contracts with state or local agencies for the education of Indian children. The Indian Self-Determination Act of 1975 (P.L. 93-638) amends the Johnson O'Malley Act to provide for maximum Indian participation in Indian education and provides for tuition payment for Indian children. As amended, the Johnson O'Malley Act authorizes funding for supplemental programs for eligible Indian students in public schools, age three years through grade twelve, to meet their special and unique educational needs as determined by contracting agencies and local Indian education committees. The BIA reports that in FY 82 this program provided services to 165,988 students in 26 states. Today, education is the largest single program expenditure of the BIA, with 264.1 million dollars having been appropriated in FY 83. (U.S. Department of the Interior Budget Justifications, FY 1984.)

A major thread running through the history of Indian affairs has been the government policy of "assimilation," and education has been its most important single means. Federal responsibility in education developed during the treaty period (1778-1870), in which approximately 400 treaties were signed with Indian nations. Many contained provisions for education. Judicial decisions, Congressional legislation, and executive orders steadily increased the federal responsibility to educate the American Indian. The actual response, however, has varied. Over time, the government has directed subsidies to mission schools, established a national Indian school system, supported state public school systems, supported alternative school systems, and enacted legislation intended to meet specific needs of Indian students.

The middle of the twentieth century (1940s-1950s) saw a period of termination of federal trust responsibility to Indian tribes and the trust relationship with certain tribes was ended. This was followed by a period of relocating Indians to urban areas for training and jobs (1940s-1960s). Many left their reservations and villages during this time.

Recently, the federal policy toward Indians has been one of self-determination. Made official during the Nixon administration, its origins go back to President Johnson's White House Task Force on Indian Affairs (appointed in 1966) and, in Congress, to the introduction by Senator McGovern (D-SD) of a concurrent resolution to increase Indian economic development and self-determination. In 1968, President Johnson sent a message to Congress recommending that Indians become involved in their own affairs, and, in 1970, Congress laid out a policy of Indian self-determination, the effects of which were felt through the 1970s. This policy was reaffirmed by President Reagan in the "White House Indian Policy Statement" of January 14, 1983.

Thus, the late 1960s was an important period in the development of Indian education. The political and social atmosphere supported positive growth. The termination period of the 1940s and 1950s had made Indian people suspicious of the federal government, but they pushed for greater federal responsibility in Indian affairs. As the 1970s began, the first Indian BIA commissioner had been appointed, and the conditions of Indian education had been well documented.

Systematic documentation of conditions among Indians and Alaska Natives began with the "Meriam Report" (The Problem of Indian Administration) issued in 1928; it is widely considered to be the first comprehensive review of Indian affairs. Concluding that the "first and foremost need in Indian education is to stop removing Indian children from their families," the report suggested that local day schools be emphasized in place of boarding schools. Forty-one years later, in 1969, the second major study of Indian education was released. The tone and findings of the "Kennedy Report" are reflected in its title, Indian Education: A National Tragedy - A National Challenge. The report provided documentated evidence, based upon extensive investigation, that both the BIA and the public school system were failing. In both educational systems, Indian students were characterized by high dropout rates, low academic achievement, and low self-concept; there was also a lack of community and parental involvement, and a dearth of Indian teachers and school administrators. Sixty recommendations for improving Indian education were made. However, the authors asserted that before any recommendations could be acted upon:

> The Federal Government must commit itself to a national policy of educational excellence for Indian children, maximum participation and control by Indian adults and communities, and the development of new legislation and substantial increases in appropriations...

The later "Havighurst Report," A National Study of American Indian Education (1970), recommended adoption of a "theme of Indian authority and responsibility for the education of Indian children and youth." The study reported that Indian students scored lower on achievement tests than children from the white majority, but found comparable ability on the Goodenough Draw-a-Man Intelligence Test, a test of mental alertness not requiring language skills. The report concluded that Indian students did not differ from other groups in inherited intellectual ability, and group differences in achievement were due to family or school factors. Other studies focused on specific aspects of Indian education. For example, an NAACP study, An Even Chance (1971), looked at the impact of federal funds in public schools and alerted the nation to the irregular spending by public schools of Johnson O'Malley, Title I, and Impact Aid funds targeted for Indian children.

These studies provided the awareness and data necessary to support change. The rise of the Civil Rights movement and the "Great Society" of the Johnson era, coupled with major policy statements by President Nixon, provided impetus from the executive branch for improvements in Indian affairs and laid the groundwork for passage of the Indian Education Act.

Legislative History of the Indian Education Act

The history of the Indian Education Act (IEA) has its origins in the Elementary and Secondary Education Act of 1965 (ESEA). The ESEA hearings of April 1966 addressed proposals to extend parts of the Act to Indian children served by schools administered by the Bureau of Indian Affairs (BIA), as well as the question, posed by the Senate Education Subcommittee, of the "advisability of transferring the responsibility for educating Indian children from the BIA to the Department of HEW" (Kennedy Report 1969, p. 2). (In 1967, an interdepartmental report requested by the Subcommittee recommended no transfer, because the coordination between DHEW and the Department of Interior had improved.) The Subcommittee subsequently approved the ESEA Indian amendment for one year, on the condition that a "thorough, professional study of Indian education by an independent agency. . ." (p. 2) be conducted. However, no money was appropriated. In the meantime, at the urging of Senator Paul Fannin of Arizona in a letter to Education Subcommittee Chairman Senator Wayne Morse, a Special Subcommittee on Indian Education was created. This Special Subcommittee undertook the job of investigating the education of American Indians and Alaska Natives.

The Subcommittee was chaired first by Senator Robert F. Kennedy and finally by Senator Edward M. Kennedy. The Subcommittee held extensive hearings across the country, taking testimony from Indian organizations, tribes and individuals, and visited BIA and public schools serving Indian children. In November 1969, the Subcommittee issued a report entitled Indian Education: A National Tragedy - A National Challenge (also known as the "Kennedy Report"). The Subcommittee effort encompassed two years of work, and resulted in seven volumes of hearings documents (4,077 pages), and five volumes, (450 pages) of committee prints. The Subcommittee, in its summary, stated:

> We are shocked at what we discovered. Others before us were shocked. They recommended and made changes. Others after us will likely be shocked, too -- despite our recommendations and efforts at reform. For there is so much to do -- wrongs to right, omissions to fill, untruths to correct -- that our own recommendations, concerned as they are with education alone, need supplementation across the whole board of Indian life. (p. XI, Summary.)

The findings supported recommendations for national legislative and administrative change. Among their recommendations for national policy and goals was:

> That there be presented to the Congress a comprehensive Indian Education Act to meet the special educational needs of Indians both in the federal schools and in the public schools. (p. 110.)

In September of 1970, an Indian Education Act was introduced in the U.S. Senate, and almost two years later it was passed and became federal law.

The Indian Education Act was signed into law on June 23, 1972, as Title IV of Public Law 92-318.[3] The Act was designed to address the educational requirements of Indian (including Alaska Native) students and adults, by providing funds for special educational related needs and for participation of Indian people in federally-funded education programs.

The Act consists of several parts:

Part A, the focus of this evaluation, supports a broad range of educational services for Indian children. (See Table 3-1, "Authorized Use of Funds.") Part A provides grants on a formula basis to local education agencies and to Bureau of Indian Affairs (BIA) tribally-operated schools operated on a contract basis with BIA. It also provides discretionary grants to Indian-controlled schools located on or near a reservation.

The Declaration of Policy in Part A states:

> (a) In recognition of the special educational and culturally related academic needs of Indian students in the United States, Congress hereby declares it to be the policy of the United States to provide financial assistance to local educational agencies to develop and carry out elementary and secondary school programs specially designed to meet these special educational or culturally related academic needs, or both.

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[3] In October 1972, Congress appropriated $18 million to start the Program. However, the funds were impounded until a U.S. District Court ordered their release and further ordered the U.S. Office of Education to "obligate or expend" the $18 million by June 30, 1973.

(b) The Commissioner shall, in order to effectuate the policy set forth in subsection (a) carry out a program of making grants to local educational agencies which are entitled to payments under this title and which have submitted, and had approved, applications therefore, in accordance with the provisions of this title.

Part B also focuses on the education of Indian children, and supports a wide variety of educational activities through discretionary grants. These include grants for pilot and demonstration projects; technical assistance; training for educational personnel; exemplary programs; and educational services, such as remedial instruction, school health, and psychological services not available in sufficient quantity or quality for students whose needs would not otherwise be met. Eligible grantees for Part B include Indian tribes, organizations, institutions of higher education, state and local education agencies, federally-supported elementary and secondary schools, and individuals receiving fellowships.

Part C supports planning, pilot, and demonstration projects, as well as service programs to improve educational opportunities for Indian adults.

Part D provides for the establishment of the National Advisory Council on Indian Education, a 15-member body appointed by the President, and for the administrative costs of the Indian Education Program Office (IEP), which administers activities authorized under the Indian Education Act.

Part E authorized 5 percent of appropriated funds of the Higher Education Act for the preparation of teachers for Indian children, and allows the Commissioner of Education to designate certain schools on or near reservations as local education agencies. Part E was an amendment to Part D, Title V (Education Professions Development Act) of the Higher Education Act, which is no longer authorized.

The Reauthorizations of the Indian Education Act and Their Impact Upon Part A

In 1974, Public Law 93-380 (Education Amendments of 1974) reauthorized Indian Education Act programs from 1976 to 1978, and included no significant amendments to the Part A Program, except that the set-aside for non-public schools (Indian-controlled schools) was increased from 5 percent to 10 percent of Part A funds.

TABLE 3-1

AUTHORIZED USES OF PART A FUNDS*

A grantee may use grant funds for services and activities designed to meet the special educational or culturally related academic needs, or both, of Indian children. Projects may focus on basic skill instruction or other academic areas or on Indian culture as related to academic skills. All projects are encouraged to use culturally-based materials and techniques in program activities. Examples of permissible services and activities include but are not limited to:

Remedial instruction in basic skill subject areas.

Instruction in tribal heritage and in Indian history and political organization, including current affairs and tribal relationships with local, state, and federal governments.

Accelerated instruction and other activities that provide additional educational opportunities.

Home-school liaison services.

Creative arts such as traditional Indian art, crafts, music, and dance.

Native language arts, including bilingual projects and the teaching and preservation of Indian languages.

Education-related items that parents cannot afford, such as academic expenses and experiences for participation in extracurricular activities sponsored by the school, and, in the cases of extreme hardship, food, clothing, medical and dental care, provided that the parent committee and the LEA establish eligibility criteria based on financial need for receipt of those items.

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*Excerpted from Federal Register/Vol. 45, No. 100/May 22, 1980, page 34157.

In 1978, the Act was reauthorized for 1979 to 1983, with the passage of Public Law 95-561 (Education Amendments of 1978), and the Reconciliation Act in 1981 extended the Program through 1984.

The technical amendments in the Education Amendments of 1978 had an impact on the Part A Program. These amendments:

1. Broadened the scope of Part A to include culturally related academic needs.

   A House Report on the Education Amendments of 1978 (H.R. 15) asserted that "in no way would the inclusion of culturally related education programs be construed as a departure from the importance of providing basic educational instruction to Indian students through the Part A entitlements."

2. Authorized a competitive grant program for LEAs to support demonstration projects and programs designed to plan for and improve education opportunities for Indian children. A sum no greater than 10 percent of the funds appropriated for the entitlement program under Part A can be used to support the program. A portion, not to exceed 25 percent of the 10 percent set aside, is reserved for projects in school districts with high concentrations of Indian children.

   H.R. 15 indicated that, although school districts could compete for demonstration funds under Part B of the IEA, the policy of Indian preference prevented funds from going to LEAs. Under the new amendment, LEAs could compete for grants under Part A as well as under Part B, with assurance that some of the LEA projects would be funded under Part A.

3. Mandated three changes regarding parent committees:

   a. Allowed persons serving in loco parentis to serve on parent committees.

   b. Gave parent committees input into the hiring of personnel with IEA funds. (Actual control over hiring and firing, however, was not granted.)

   c. Required parent committees to establish, adopt, and abide by the by-laws that would govern their programs under the IEA.

4. Granted certain tribal schools LEA status for the purpose of receiving Part A funds. To qualify, the schools must meet BIA educational standards or be operated under a contract in accordance with the provisions of the Indian Self-Determination and Education Assistance Act.

   H.R. 15 indicated that these schools shall remain eligible to compete for monies under the 10 percent set-aside in the Act. The rationale behind giving LEA status to tribal schools was that they were increasing in number and had faced problems in the awarding of competitive grants from their tribes.

5. Authorized a thorough study and analysis of the definition of 'Indian' and ordered a report submitted to Congress. (This report was submitted to the President and the Congress on September 30, 1982, and is entitled "A Study of

Alternative Definitions and Measures Relating to Eligibility and Service Under Part A of the Indian Education Act.")

6. Required that the Commissioner seek specific information establishing a child's eligibiity under Part A. (This became the "506" or Indian Student Certification form.)

7. Required the establishment of an annual audit of a sample of not less than one-third of the total school districts receiving funds under Part A, and a report of findings submitted to Congress. (This condition was met for the first time in FY 82.)

8. Authorized regional information centers to provide technical assistance and disseminate information (the Indian Education Resource and Evaluation Centers in five regions of the U.S.).

   H.R. 15 stated "this program will alleviate one of the greatest needs in Title IV Program's operation: the lack of information on grants available, program operations, etc. The House Committee also specifically directs that these centers provide information on successful programs on request, to encourage replication of such programs where appropriate."

The Regulatory History of the Indian Education Act

The first proposed rules and regulations for the Indian Education Act were published on May 1, 1973, and the final regulations were published in the Federal Register on July 6, 1973. The first set of regulations was developed in a minimal amount of time in order to get the funds to the LEAs.

The Education Amendments of 1978 (Public Law 95-561) presented a real opportunity to make regulatory changes in IEA programs. Even though it was not required, the then Office of Indian Education (OIE) chose to revise or develop new regulations for all IEA programs. The process was governed by the amendments to the Act and the need to clarify existing regulations. In addition, the new regulations:

1. Set out provisions for several new programs;
2. Sharpened the distinctions among the existing programs;
3. Provided for consistency among similar programs;
4. Tightened selection criteria for competitive programs;
5. Clarified the standards for development, operation, and evaluation of projects; and,
6. Standardized definitions.

The process through which these new regulations were developed lasted well over two years. The actual process began prior to the passage of the Education Amendments of 1978 (Public Law 95-561) on November 1, 1978, and was completed with the publication of the final regulations on May 21, 1980.

The major changes to the Part A Program were:

1. Multi-year funding was allowed for the first time in Part A. Authority was granted to approve projects for up to three years.
2. Responsibilities of the local educational agency (school district) and responsibilities of the parent committee were clearly listed in two separate sections of the regulations.
3. The section "Selecting the Parent Committee" defined the process of selecting and the composition of the committee.
4. Regulations were added for demonstration projects in Part A, although these have never been funded.
5. Independent evaluations of projects were required.
6. The format was changed for easy understanding, and a clear relationship to EDGAR and other OE/ED program regulations was outlined.

The Funding History of the Indian Education Program

Every public school district that has ten or more Indian students, and every LEA in Alaska, California, and Oklahoma with at least one Indian student, is eligible to receive Part A funds, provided an acceptable application is submitted to the Department of Education.[4] School districts receive monies based upon the number of eligible Indian students. Thus, each year the total allocation for public school entitlements is divided among districts making application for that year, based upon a formula which considers each state's average per pupil expenditures for education.

Until FY 82, funding for the Indian Education Program showed an increase with each successive year. As shown in Table 3-2, the Program, which started with approximately $17 million in FY 73, reached a peak of approximately $82 million in FY 81. The increases from year to year have been uneven, with two large increases occurring between FY 73 and FY 74 ($24 million), and between FY 78 and FY 79 ($12 million).

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[4] Technically, a local education agency is entitled to receive a grant if the number of Indian children enrolled in that agency's schools is either (a) ten or more; or (b) at least half the total enrollment for that agency. However, an agency may apply without regard to enrollment requirements if it is located in Alaska, California or Oklahoma, or on, or in proximity to, an Indian reservation.

TABLE 3-2

FUNDING HISTORY OF THE INDIAN EDUCATION ACT BY PROGRAM (1973-1983)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Payments to LEAs (Part A)	$10,952,376	$23,809,524	$22,727,273	$31,818,182	$33,631,921	$35,318,182	$43,635,768	$47,272,727	$53,517,015	$50,419,000	$44,059,091
Payments to Non-LEAs or ICSs (Part A)	547,618	1,190,476	2,272,727	3,181,818	3,330,225	3,531,818	4,363,636	4,727,273	4,729,206	4,541,000	4,405,909
Special Programs for Indian Children (Part B)	5,000,000	12,000,000	12,000,000	16,000,000	14,063,000	14,400,000	15,452,554	16,500,000	14,481,552	14,808,762	12,600,000
Special Programs for Indian Adults (Part C)	500,000	3,000,000	3,000,000	4,000,000	4,183,000	4,410,000	5,930,000	5,930,000	5,414,119	5,213,000	3,593,000
Program Administration	--	1,264,700	2,034,000	2,055,000	1,887,000	2,072,000	2,268,923	2,445,000	3,319,469	2,580,641	2,589,000
Total	$16,999,994	$41,264,700	$42,034,000	$ 57,055,000	$57,095,146	$59,732,000	$71,650,881	$76,875,000	$81,461,361	$77,562,403	$67,247,000

According to Department of Education records, there are 3,177 public school districts eligible for Part A funds. The number of districts receiving Part A funds increased rapidly during the first few years of the program but has been at slightly above or below 1,100 LEAs since 1976. Part A funds available to local school districts increased more steadily, from $10,952,366 in 1973 to a high of $53,520,000 in 1981. Table 3-3 provides an overview of the appropriations, awards and number of students served for each of the past three years for the Part A Program and Department of Education projections for 1984.

TABLE 3-3

SUMMARY OF PART A FORMULA GRANT PROGRAM APPROPRIATIONS, APPLICATIONS, AWARDS, AND STUDENTS SERVED (1981-1983)*

	1981 Actual	1982 Actual	1983 Appropriation	1983 Revised
Appropriation	$53,520,000	$50,419,000	$44,059,091	$32,241,000
No. of applications				
Public schools	1,027	1,081	1,081	1,081
Tribal schools	36	38	38	38
TOTAL	1,063	1,119	1,119	1,119
No. of awards				
Public schools	1,012	1,075	1,075	1,075
Tribal schools	36	38	38	38
TOTAL	1,048	1,113	1,113	1,113
No. of states in which awards are made				
Public schools	41	41	41	41
Tribal schools	12	12	12	12
No. of Indian students served by LEAs				
Public schools	282,460	297,035	301,320	301,320
Tribal schools	6,868	7,258	7,258	7,258
TOTAL	289,328	304,293	308,578	308,578
Average award	$51,069	$45,299	$39,586	$28,968
Average expenditure per student	$185	$166	$143	$104

*Figures for 1981 are from: Justifications of Appropriation Estimates for Committees on Appropriations: Fiscal Year 1983 - Indian Education. Prepared by the Department of Education (p. 12). Figures for 1982 and 1983 are from: Education Activities, Indian Education: Justifications for Appropriation, Fiscal Year 1984. Prepared by the Department of Education (p. 12).

The Organization of the Indian Education Program Office

After passage of the Indian Education Act in 1972, immediate attention was given to the funding and implementation of the Program. The law required a Deputy Commissioner for Indian Education, who would report directly to the U.S. Commissioner of Education. Dr. William Demmert (a Tlingit-Sioux from Alaska) assumed this position. According to Dr. Demmert, there were three considerations in determining the organizational structure for an office of Indian education: (1) whether the organization should contain divisions, national centers, or other branches; (2) whether the organization should include only the minimum structure required by law; and (3) whether the program should be regionalized. (Demmert, 1973.) After considerable discussion, the Commissioner for Education decided upon a structure in which the Deputy Commissioner of Indian Education reported directly to the U.S. Commissioner of Education and supervised two divisions and four branches. Since Dr. Demmert's departure in 1975, there have been four directors who served for a year or more (and several who served in an acting capacity for a brief period). A chronological listing of their tenures is given in Table 3-4.

In addition to its director, the quality and stability of staff is important to any program, and this has been a concern of the managers of the Indian Education Program Office since the Program began. In 1979 there were 53 authorized positions in the Office of Indian Education, and in 1980 the employment ceiling for the Indian Education Program was raised to 57. During the late 1970s, and through 1981, the number of staff in the Office typically ranged from 44 to 49; during 1982, the average number employed increased to 56. The staff during the mid-1970s was reported to be as high as 70-75 percent Indian or Alaska Native, but the percentage steadily decreased in the late 1970s, with only 12 (22 percent) Indian staff (all professional) in 1981. During the late 1970s and early 1980s there was also staff turnover and there were occasional complaints from local project personnel about the fluctuations in Washington staff and their lack of experience in the field. The early 1980s have seen no improvement in this regard. Due to reductions in force throughout the Department

TABLE 3-4

A CHRONOLOGY OF CHIEF ADMINISTRATORS OF INDIAN EDUCATION FROM 1972 TO THE PRESENT

Administrator	Title	Tenure
Dr. William Demmert, Jr. (Tlingit-Sioux)	Deputy Commissioner of Indian Education	1972-1975
Dr. Gabe Paxton (Choctaw)	Acting Deputy Commissioner of Indian Education	1975-1977
Dr. Gerald Gipp (Standing Rock Sioux)	Deputy Commissioner of Indian Education	1977-1981
Mr. Frank Ryan (Gros Ventre-Northern Cheyenne)	Director of Indian Education Programs	1981-1982
Mr. Hakim Kahn	Acting Director of Indian Education Programs	1982-Present

Note: A number of individuals have served for brief periods (less than six months each) in an acting capacity as chief administrator of Indian education. Because of the brevity of their tenures in office, the names of these individuals have been omitted.

of Education, in 1982 there was an 82 percent turnover in Program staff, and by the end of the year there were only four American Indians or Alaska Natives working in the Program and there was no one who had local project experience in the past ten years.[5]

In July 1977, a new deputy Commissioner, Dr. Gerald Gipp, assumed leadership of the office, and at the same time, an internal program audit was mandated by the U.S. Commissioner of Education. The audit's findings, together with a change in key personnel within the program, were instrumental in changing the organizational structure.

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[5] Based upon information provided by the Indian Education Program Office.

The program audit recommended that the Program Office reorganize, and that the reorganization be based upon the following concepts:

- Programmatic functions should be separate from administrative functions;
- Clear distinctions in job function should be made for program specialists, according to GS-grade levels; and
- Program specialists should monitor all Indian education projects (Parts A, B, and C) for a specific region.

From the start, the reorganization process actively involved key Indian Education program staff and Office of Education managers to provide for smooth and speedy implementation of the new structure. In 1980, the reorganization was approved.

The 1980 organizational structure is based upon geographical regions, rather than upon functional parts of the program. As such, program specialists within the office became responsible for Part A projects, and Part A was no longer isolated from Parts B and C. The anticipated results of the reorganization included improved staff utilization, better understanding of job functions, training for all office employees, and improved service to IEP grantees.

The reorganization was spurred in part by the dissatisfaction in the late 1970s and early 1980s, among local Part A projects, with the performance of the Program's federal office. In particular, the projects complained that changes in personnel had made it difficult to know whom to contact; that the office provided inconsistent interpretations of legislation, rules, and regulations; and that receipt of Part A grant funds after the beginning of the school year created problems in hiring and in project implementation. As part of the Part A Program evaluation reported herein, local project directors and knowledgeable school district administrators were asked to indicate how satisfied they were with the assistance they received from the Department of Education. Despite the record of staff turnover and reported problems with the Program staff and procedures, two-thirds of the project directors reported that IEP had been moderately to very helpful to their projects (moderately = 29%, very important = 37%). Similarly, of the district administrators who reported that their projects had received some form of assistance from IEP (36%), a substantial majority (89%) rated this assistance moderately to very satisfactory (moderately = 32%, very satisfied = 57%).

In May 1981, the Office of Elementary and Secondary Education (OESE), of which the Office of Indian Education is a part, was reorganized and the Deputy Assistant Secretary for Indian Education became the Director of Indian Education Programs (IEP). The present organizational structure within the Department of Education is illustrated in Figure 3-1. There are now two divisions within OIE, the Division of Program Operations and the Division of Program Support.

The Division of Program Operations is organized into five branches, each responsible for a geographic region [(1) Eastern, (2) Plains, (3) Northwest, (4) Southwest, (5) South Central]. This division monitors grantees; provides technical assistance; disseminates information on applications and effective project management and operation; reviews Part A applications; conducts Part A Program audits; and oversees the review of discretionary grant applications. All branches exercise each responsibility.

The Division of Program Support manages the Part B fellowship program and five Resource and Evaluation Centers[6] which are under contract to IEP. Its Program Administration Branch is responsible for monitoring internal management (finance, personnel, labor relations, adherence to Department of Education procedures), and preparing position papers on Indian education. Its Procurement and Assistance Branch handles grant management functions, program procurements, management of the fellowship grant program, development and execution of the review plan for Indian Education Program grants, and administration of the five Center contracts.

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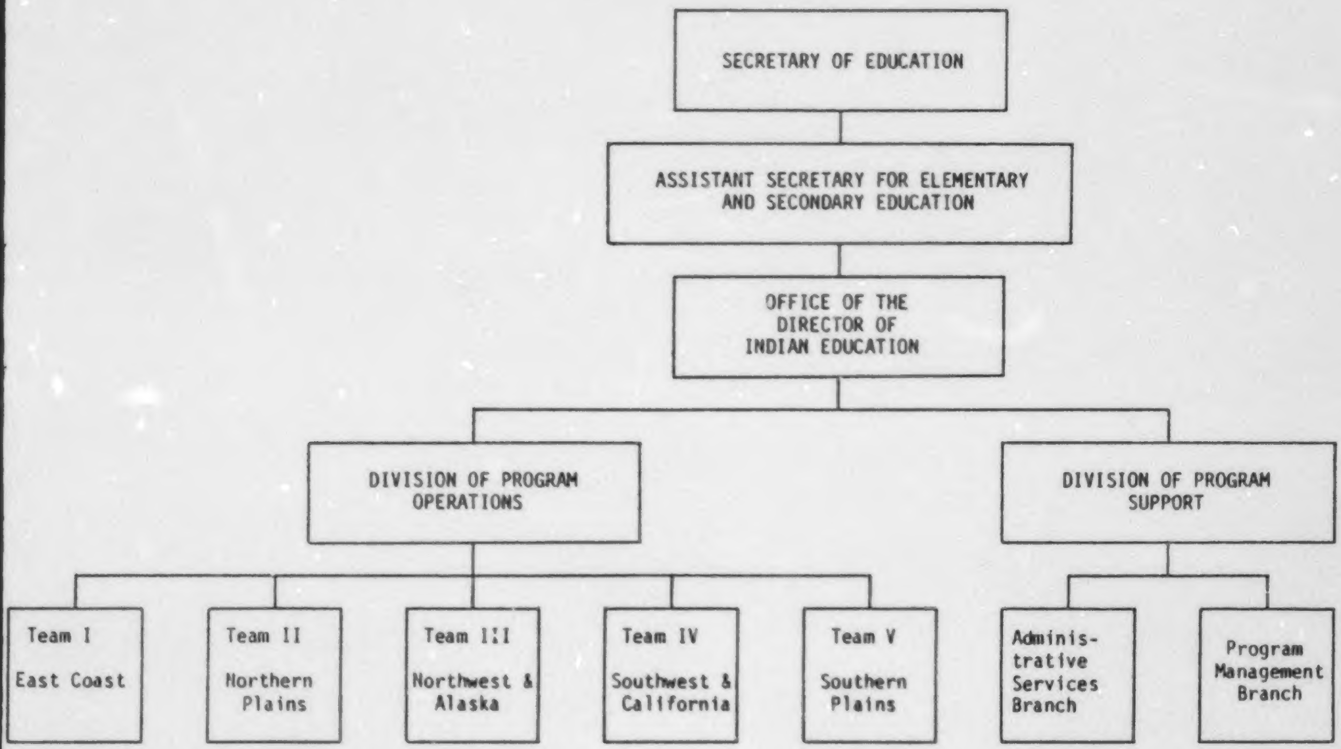
[6] The Centers are charged with, first, providing technical assistance to local education agencies, Indian tribes and organizations, and to Part A parent committees of programs supported by the Indian Education Act; second, with disseminating information concerning other federal education programs which may benefit Indians; third, with developing materials addressing the educational and cultural needs of Indian students; and fourth, with encouraging potential Part A applicants to apply for the Program. Information provided by Part A project directors and district administrators knowledgeable about the operations of the Part A project in their LEAs, as part of the present study, indicated that a majority of Part A projects used the services provided by these centers and were satisfied with them.

FIGURE 3-1

CURRENT ORGANIZATIONAL STRUCTURE OF THE INDIAN EDUCATION PROGRAM
(January 1, 1983)


SECRETARY OF EDUCATION
ASSISTANT SECRETARY FOR ELEMENTARY AND SECONDARY EDUCATION
OFFICE OF THE DIRECTOR OF INDIAN EDUCATION
DIVISION OF PROGRAM OPERATIONS
DIVISION OF PROGRAM SUPPORT
Team I East Coast
Team II Northern Plains
Team III Northwest & Alaska
Team IV Southwest & California
Team V Southern Plains
Administrative Services Branch
Program Management Branch

Summary

After years of concern in Congress over remedying the documented problems of Indian education, the Indian Education Act was passed in 1972. Part A of this Act provides formula grants to LEAs and BIA contracted tribally-operated schools, as well as discretionary grants to Indian-controlled schools located on or near reservations, so they may "develop and carry out elementary and secondary school programs specifically designed to meet the special educational or culturally related academic needs, or both, of Indian students." The rules and regulations under which the Part A Program operates were formulated in 1973, and were subsequently revised with the 1978 Amendments. The most recent revisions appeared in 1980. The major changes involved multiyear funding for Part A projects, and a clarification of the roles of LEAs and parent committees in local projects.

The Indian Education Program (IEP) was created through legislation to administer programs under the Indian Education Act. In the ten years of its existence, the IEP has undergone high staff turnover, has had five chief administrators, and has been subject to some intense criticism from local project personnel. At the time this evaluation was conducted, however, staffs at the local projects appeared to be generally satisfied with the operations of the federal office.

The discussion in this chapter has been intended to provide a background and context for the presentation of the evaluation findings which follow. Next, in Chapter 4, an overview is provided of the local projects in the Part A Program.

CHAPTER 4: OVERVIEW OF LOCAL PROJECTS

This chapter provides an overview of the Part A projects studied in this evaluation.[1] Its purpose is to provide a summary of some key characteristics of the projects and their settings, as a preface to the more detailed presentation of descriptive and impact data which appear in the chapters that follow.

More specifically, this chapter provides a description and discussion of:

- Project participants;
- Project resources;
- Project staff and operations; and
- Major project activities
  - Tutoring
  - Cultural instruction
  - Counseling
  - Home-school liason
  - Financial aid.

The data are largely presented at the project level and are based on information supplied by surveys of project staffs, reviews of project grant proposals and other documents available at the visited sites, and data made available through the Department of Education.

Scope of Study

The Part A projects under study are those administered by public school districts.[2] All school districts in the U.S. with ten or more Indian/Alaska

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[1] The study was concerned with the 865 projects which had been in operation for three or more years and which had at least 30 Indian students as of the fall of 1981; this represented 85 percent of the total number of Part A projects located in public schools.

[2] In addition to public schools, the Part A Program provides grants to BIA-contracted, tribal schools and competitive grants to Indian-controlled schools that are not LEAs and that are located on or near a reservation; neither was included in this study.

Native students (or more than one Indian in the states of Oklahoma, California, and Alaska) are eligible to apply for funds. Until 1980, when multiyear funding became a possibility, school districts were required to submit an application for funding to the U.S. Office of Education each year.

Of an estimated 3,177[3] eligible public school districts in FY 81 (the year in which data for this study were collected), 1,027 districts applied for Part A funds, and grants were awarded to 1,012. However, the Department of Education estimated that in 1981, 85 percent of eligible Indian students attended schools in districts receiving Part A funds. Project directors reported that nearly four-fifths (79%) of the projects began through school district initiative, in concert with a group of interested parents serving as the parent committee. It was reported that about one-fifth (21%) of the projects began through Indian community initiative -- an individual or community group urged the school district to apply for funds. Projects in the study had been in operation a median of 7.3 years, and nearly nine-tenths (88%) had operated at least five years.[4]

The Indian population of the United States is widely dispersed, and Part A projects exist in diverse locations. An overview of several basic characteristics of the school districts in which Part A projects operate is presented in Table 4-1 and summarized below:

- The majority of Part A projects studied were located in rural settings; 35 percent of the projects were located on or near a reservation, and 29 percent in other rural areas.
- For those districts receiving Part A funds, the median total school district enrollment was 1,878.

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[3] This is the number of districts estimated to be eligible by the Department of Education. Results of surveying a sample of these districts as part of the alternative resources substudy (see Apppendix 4) suggests that a lower estimate of 2,929 districts may be more accurate.

[4] Since projects in this study were selected from those projects funded continuously for at least three years (including 1981-82), these figures overstate the median length of operation of all Title IV projects.

- Nearly three-fifths (59%) of the Part A projects studied operated within school districts with relatively small Indian student populations -- 25 percent in districts with 31-99 Indian students and 34 percent in districts with 100-219 Indian students. The median Indian student enrollment was 156.
- The median Indian student "density" was 8 percent; the Indian children in a majority of Part A projects were a racial and cultural minority within their school districts and classrooms.
- In nearly three-fourths (73%) of the Part A projects, half or more of the districts' Indian students were from one tribe.

TABLE 4-1

CHARACTERISTICS OF SCHOOL DISTRICTS RECEIVING
PART A FUNDS (1981-82 SCHOOL YEAR)
(Weighted N=865)

LOCATION

	Percentage of Projects	Total Number of Eligible Students	Mean Part A Grant
On or near a reservation	35%	104,758	$63,753
Other rural areas (rural area or town with population of under 10,000)	29	69,163	40,277
Urban, non-metropolitan area (in or near a larger town with population of 10,000 to 50,000)	17	49,197	55,445
Metropolitan area (in or near a city with population of over 50,000)	18	34,091	52,353

TOTAL SCHOOL DISTRICT ENROLLMENT IN GRADES K-12

	Percentage of Projects	Total Number of Eligible Students	Mean Part A Grant
Small (31-575 students)	24%	27,674	$29,141
Medium (576-1800 students)	22	62,493	46,375
Large (1801-3250 students)	18	51,932	72,743
Very large (3251-11,000 students)	21	48,484	47,491
Extremely large (11,001-224,580 students)	15	66,626	95,474

MEDIAN TOTAL ENROLLMENT = 1,878

TABLE 4-1 (continued)

TOTAL INDIAN ENROLLMENT IN PART A PROJECTS

	Percentage of Projects	Total Number of Eligible Students	Mean Part A Grant
Very small (31-99 Indian students)	25%	16,803	$ 12,523
Small (100-219 Indian students)	34	42,856	27,833
Medium (220-549 Indian students)	26	69,822	70,403
Large (at least 550 Indian students)	15	127,727	178,953

MEDIAN INDIAN ENROLLMENT = 156

INDIAN STUDENT DENSITY*

	Percentage of Projects	Total Number of Eligible Students	Mean Part A Grant
Very low (0.1% to 5% of total enrollment)	38%	65,246	$32,153
Low (5.1% to 20%)	24	54,214	51,652
Moderate (20.1% to 70%)	23	88,398	66,191
High (70.1% to 100%)	15	49,350	95,844

MEDIAN INDIAN STUDENT DENSITY = 8%

TRIBAL DIVERSITY WITHIN PROJECTS

	Percentage of Projects	Total Number of Eligible Students	Mean Part A Grant
Over half the students within the project are from the same tribe	73%	195,324	$53,190
Fewer than half the students within the project are from the same tribe	27	61,885	51,655

*Proportion of total school district enrollment that is Indian or Alaska Native.

Note: The actual number of projects in the sample was 115. Data were weighted to make the findings statistically representative of all projects.

Definition and Background of Eligible and Participating Students

The issue of Indian definition is complex, and the regulations for the Part A Program provide considerable latitude regarding who is actually to be served by local projects. Projects receive their federal funding based upon the number of Indian/Alaska Native students for whom there is a completed OE Form No. 506 on file.[5] Parents are asked to complete an OE Form No. 506 to document the Indian or Alaska Native identity of their children, and a count of these forms is used as the basis for determining the amount of federal funding, which is awarded on a per capita basis.[6] Although project funding is based upon the number of completed 506 forms, participation in project activities is not limited to these students by federal regulations. Further, federal regulations do not require that all Indian students be served by the project. Thus, in discussing project participants, it is necessary to consider local operational definitions of who is eligible for service and who is actually served.

As reported by the project directors, 72 percent of the projects define student eligibility on the basis of a completed OE Form No. 506. The remaining projects consider eligible to participate in Part A activities any Indian student enrolling in the school system (11%) or any student who takes part in project activities (17%). Over two-thirds (71%) of the projects reported a change in the number of eligible students as a result of the introduction of the OE Form No. 506. Of these, 82 percent experienced a decrease in the number of eligible students.

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[5] Until the OE Form No. 506 was introduced in the 1978-79 school year, funding was based upon school districts' undocumented reports of the number of Indian students enrolled.

[6] A sizable but undetermined number of parents have refused or been unable to complete forms. Reasons include fear of federal forms, personal problems with school officials, and inaccessibility of tribal rolls.

Overall, there were an estimated 259,735 Part A-eligible Indian students in grades K-12 in the sample universe of 865 projects. The students were almost equally divided among the following grade ranges: kindergarten-grade 3 (30%); grades 4-6 (23.5%); grades 7-9 (23.5%); and grades 10-12 (23%). Approximately half of the students were boys and half were girls.

As shown in Table 4-2, of the Indian students in the school districts receiving Part A funds, an estimated 203,275 (78%) participated in project activities, with a median of 119 students per project. Participation is defined as taking part in at least one project activity as reported by project directors. The largest proportion (44%) of the participating students attended school in districts on or near reservations, while the next largest proportion (27%) attended school in other rural areas. The remaining participating students were found in schools in urban, non-metropolitan (19%) and metropolitan (10%) areas.

TABLE 4-2

ESTIMATED NUMBER OF INDIAN STUDENTS ELIGIBLE FOR AND PARTICIPATING IN PART A PROJECTS (1981-82 SCHOOL YEAR)

Total eligible Indian students in study's universe of 865 projects	259,735
Total Indian students participating in Part A projects	203,275
Percentage of eligible students participating	78%
Median number of participants per project	119

Of the Indian students included in the impact evaluation (i.e., a sample of Indian students in grades 4-12), over three-fourths indicated that English was the language in which they usually spoke to their family at home (75 percent in grades 4-6; 82 percent in grades 7-12); only a small proportion used an Indian language (13 percent in grades 4-6; 7 percent in grades 7-12) or a combination of English and an Indian language (10% in grades 4-6; 9 percent in grades 7-12) predominantly at home; and only 2 percent reported using a language other than English or an Indian language. Also, over two-thirds of the students (76 percent in grades 4-6; 70 percent in grades 7-12) were from families with incomes low enough to be eligible for free or reduced price lunches through the subsidized school lunch program.

In most respects, Indian students participating in the Part A projects were quite similar to those who, for some reason, did not participate. In grades 4-6, for example, they were similar with respect to the language used at home and the type of community in which they lived, but were slightly different in terms of family income as measured by eligibility for free or reduced school lunches (76 percent of the participants and 64 percent of non-participants were eligible for the school lunch program). In grades 7-12, a similar proportion of participants and non-participants benefitted from the school lunch program, but a somewhat smaller proportion of participants than non-participants (16% vs. 25%) reported they used predominantly an Indian language or a combination of English and an Indian language at home. A smaller proportion of participants (52% vs. 69%) attended school in districts on or near reservations and a larger proportion of participants (25% vs. 15%) attended school in other rural areas. With these minor exceptions, analyses comparing the characteristics of participants and non-participants showed no differences of note, and it was not clear from the data obtained on students or from observations and discussions at the projects why some students chose to participate in project activities and others did not. Frequently, it seems to have much to do with a student's class and after school schedules and with peer group preferences at any given time. Over a period of several years, some students participated regularly in a variety of Part A project activities, while others were minimally involved.

Project Resources[7]

School districts receive Part A funds on a formula basis, which takes into account the number of Indian students and the state's average per-pupil expenditure. The median project budget was $26,450. Over two-thirds (71%) of the projects had budgets of under $50,000, as shown in Table 4-3. Nearly

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[7] For a more complete discussion of resources available for Indian students in public school districts, see Appendix 5 (p.A-33+) of this report.

TABLE 4-3

DISTRIBUTION OF PART A PROJECTS BY BUDGET SIZE (1981-82 SCHOOL YEAR)
(Weighted N=865)

Total Project Budget	Percentage of Projects*
$5,600 - $10,000	11%
$10,001 - $25,000	38
$25,001 - $50,000	22
$50,001 - $100,000	17
$100,001 - $1,200,000	12

MEDIAN BUDGET = $26,450

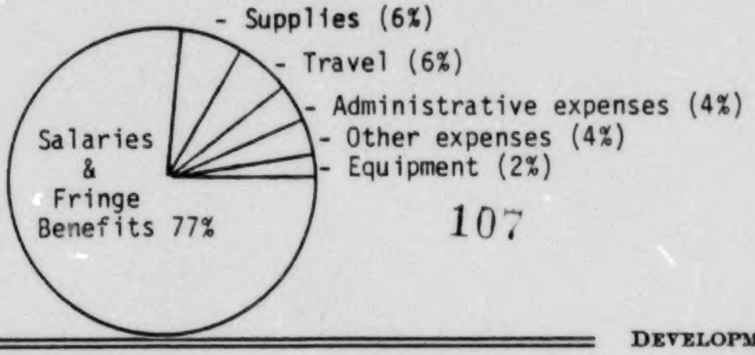
*The actual number of projects in sample was 115. Data were weighted to make the findings statistically representative of all projects.

two-thirds (65%) of the projects were funded entirely by Part A funds; about one-third (35%) were funded primarily by Part A but also received funds from other federal, state, or local sources.

As shown in Figure 4-1, most (77%) of Part A funds in the projects sampled were used for salaries and fringe benefits. The other categories of expenditures each accounted for 6% (or less) of the total: supplies, including curriculum materials, arts and crafts supplies, but not office supplies (6%); equipment purchase or rental (2%); travel (6%); administrative expenses, including routine office supplies and costs (4%); and other expenses, including fringe benefits when these were determined separately (4%).

FIGURE 4-1

EXPENDITURES OF PART A FUNDS BY PROJECTS: 1981-82 SCHOOL YEAR



In addition to the Part A Program, many eligible Indian students benefitted from other special or educational programs. Table 4-4 summarizes data collected on selected other federal programs serving school districts participating in the Part A Program. The Chapter I program, for example, provides financial assistance to school districts serving areas with concentrations of children from low income families. Funding is determined by the number of low income children residing in the school district, and is used to improve programs in "basic skills," such as reading and mathematics. Nearly all (95%) districts receiving Part A funds received Chapter I funds, with a mean of 30% of the Indian students in these districts served by the Chapter I program.

The Johnson O'Malley program, administered by the Bureau of Indian Affairs (Department of the Interior), provides grants to school districts, tribal organizations, or states, to meet special educationally related needs of Indian students in public schools. The focus is similar to that of Part A, but beneficiaries residing on or near reservations are given funding priority. Indian student eligibility requirements for Johnson O'Malley are more restrictive than for the Part A Program, in that students must be at least one quarter blood Indian from a federally recognized tribe. Of the school districts in the study sample, about one-half (53%) received Johnson O'Malley funds directly or indirectly through local tribes. However, 79 percent of the districts located on or near a reservation received funds, compared with only 39 percent of those located elsewhere. Similarly, as shown in Table 4-6, 71 percent of districts receiving over $100,000 per year in Part A funds received Johnson O'Malley funding directly or indirectly, as compared to 50 percent of other districts. In districts that received both Part A and Johnson O'Malley funds, a mean of 59 percent of the Indian students participated in activities supported by the Johnson O'Malley program.

As Table 4-4 shows, school districts also received funds from other supplementary federal programs, including one or more federal programs supporting vocational education or education for the handicapped, or Title VII (Bilingual Education).

TABLE 4-4

OTHER FEDERAL PROGRAMS SERVING SCHOOL DISTRICTS WITH PART A PROJECTS (1981-82 SCHOOL YEAR)

(Weighted N =865)

Federal Program	Pecentage of School Districts Receiving Services*	Mean Percentage of Indian Children Served in Districts Receiving Services
ESEA Chapter 1 (including Migrant)	95%	30%
Johnson O'Malley	53	59
ESEA Title VII (Bilingual Education)	13	**
Vocational Education	57	20
Education for the Handicapped	69	10

*The actual number of projects in the sample was 115. Data were weighted to make the findings statistically representative of all projects.

**Data are unavailable for this program. (Too few projects reported the number of participating Indians.)

TABLE 4-5

PERCENTAGE OF PART A SCHOOL DISTRICTS RECEIVING JOHNSON O'MALLEY (JOM) FUNDING BY PROJECT LOCATION

(Weighted N=865)

	Project Location				
JOM Funding Status	On or Near Reservation	Other Rural	Urban	Metropolitan	All Districts
Receive JOM funding directly	60%	37%	22%	16%	39%
Receive JOM funding indirectly from local tribal organizations	19	20	3	4	14
Do not receive JOM funding	21	43	76	80	48

TABLE 4-6

PERCENTAGES OF PART A SCHOOL DISTRICTS RECEIVING JOHNSON O'MALLEY (JOM) FUNDING BY SIZE OF PART A GRANT

	Size of Annual Grant					
JOM Funding Status	$5,000-10,000	$10,001-25,000	$25,001-50,000	$50,001-100,000	Over $100,000	All Districts
Receive JOM funding directly	29%	40%	31%	38%	59%	39%
Receive JOM funding indirectly from local tribal organizations	14	14	18	9	12	14
Do not receive JOM funding	58	46	50	53	29	48

Project Staff and Operations

As indicated above, most (77%) project funds were used to support staff salaries and benefits. Overall, projects employed a median of 1.35 full or part-time professionals (project directors, certified teachers, etc.) and 1.88 full or part-time paraprofessionals (tutors, teacher aides, non-certified cultural instructors, etc.). However, staffing needs varied widely, and increased with project size. (See Table 4-7.)

TABLE 4-7

MEDIAN LEVELS OF PROJECT EMPLOYMENT BY PROJECT SIZE (1981-82 SCHOOL YEAR)
(Weighted N =865)

Number of Indian Students Enrolled in District	Median Number of Professionals (Full or Part-Time)	Median Number of Paraprofessionals (Full or Part-Time)
Very small (31-99)	1.09	0.96
Small (100-219)	1.31	1.80
Medium (220-549)	1.60	3.68
Large (550 or more)	3.03	7.64
OVERALL	1.35	1.88

Note: The actual number of projects in the sample was 115. Data were weighted to make the findings statistically representative of all projects.

Most project directors worked part-time for the project. The median number of Part A-financed hours per week for project directors was six, and only 24 percent of the directors worked thirty or more paid hours per week. Approximately one-third of the directors indicated that Indian preference guidelines, and 36 percent indicated their special qualifications in Indian education, were important factors in their employment as Part A project directors.

Project directors who spent six or more paid hours per week working for the project (58 percent of the project directors) were predominantly Indian (69%) and were evenly split between men (49%) and women (51%). These project directors were experienced, having worked a median of 3.9 years with the project. Over half (53%) had earned at least a master's degree; another 16 percent had earned a bachelor's degree; 31 percent had not earned a bachelor's degree. Sixty-one percent were certified teachers, and 40% were certified administrators.

Project directors who spent five or fewer paid working hours per week (42%) were predominantly non-Indian (84%) and male (64%). Almost three quarters (73%) had earned a master's or higher degree; another 14 percent had earned a bachelor's degree; 13 percent had no bachelor's degree. Many were district administrators, such as federal program coordinators or assistant superintendents. Their primary responsibilities involved administrative concerns (preparing the project proposal, budget, etc.), but generally did not include day-to-day supervision or involvement with the project.

Over four-fifths (81%) of the project support staff members worked full-time on the project. The support staffs were experienced, having worked a mean of 3.2 years with the projects. Over two-thirds (71%) of the staff members were Indian and over four-fifths (84%) were women. While half (51%) of the project support staff had completed high school only, 38 percent had a college or advanced degree. One-third (36%) were certified to teach and one-fourth (28%) spoke an Indian or Native language. According to most (92%) project directors, school districts hired project staff members as a result of Indian preference requirements.

Project support staffs often assumed responsibilities beyond those defined by the staff position. For example, over half (60%) of the tutors and teacher aides also counseled students, and one-fourth (28%) provided cultural instruction. Student placements (28%), referrals to social service agencies (27%), and counseling for family members of students (25%) were other responsibilities assumed by tutors.

Parent Involvement

Volunteers played a fundamental role in the planning and operation of the projects and were a vital complement to the paid project staffs. Part A projects are required by regulation to establish a parent committee to: (1) participate in the needs assessment, design, operation, and evaluation of the project; (2) review and approve, in writing, the project application; (3) advise the school district on policies and procedures regarding the hiring of project staff; and (4) make recommendations concerning applicants for project staff positions. Parent committee members serve as volunteers and were highly involved in making important decisions about the projects and in assisting the projects in carrying out cultural and other activities. Overall, 14 percent of the parents of Indian children interviewed in the study reported that they worked as a volunteer for the project. (See Chapter 11 of this report for a more complete discussion of the structure and activities of parent committees, and other types of parent involvement.)

Needs Assessment

Another important federal requirement of Part A projects is that they conduct an assessment of the special needs of Indian children as part of their project planning. Most projects had conducted a formal, verbal, or written needs assessment survey within the last year. (Chapter 5 of this report provides a detailed discussion of this topic.)

Project Evaluation

Part A projects are also required to monitor and evaluate progress in meeting project objectives. Although the projects may conduct internal evaluations, they are required to use an independent evaluator to assist ongoing evaluation and monitoring, and to conduct a final evaluation. Data show, however, that only half (49%) of the district administrators most familiar with their Part A projects reported that the project had conducted an independent, third-party evaluation. Over two-thirds (72%) of these externally evaluated projects were evaluated during 1981. The data showed that the larger projects, in terms of grant size, were more likely to have conducted evaluations than smaller projects. Specifically, 83 percent of projects with annual grants over $100,000 conducted third-party evaluations, while only 44 percent of projects with grants at $100,000 or less conducted evaluations.

The external evaluations for over three-fifths of the projects included teacher surveys (61%) and parent interviews (68%). Fewer than half of the external evaluations included the use of student academic tests (43%), student attendance data (43%), student attitude surveys (39%), community interviews (36%), student grades (36%), or cost analyses (28%). Two-thirds (66%) of these projects paid for external evaluations with project funds; the remainder used general school district (23%) or other (11%) funds.

Project Activities

Part A projects may use grant funds to support activities that "meet the special educational or culturally related academic needs" of Indian children. The activities cited in program regulations and found to be undertaken by local projects can be categorized into five general areas: tutorial/special academic activities, cultural instruction and activities, counseling, home-school liaison services, and financial assistance for school related items.

The percentage of projects providing activities in each of these areas is shown by project location in Table 4-8. Most (80%) projects provided tutoring, with this activity provided in almost all (90%) of the projects in metropolitan areas. Most (64%) projects also offered cultural instruction and activities, with cultural programs also most prevalent in urban and metropolitan locations. About half (48%) of the projects explicitly provided counseling services; this may be somewhat understated, because counseling to individual students was often provided by project staffs in the context of other program components as well. Counseling components were somewhat more prevalent in projects on or near reservations and in metropolitan areas than in other locations. Thirty-eight percent of the projects provided home-school liaison services, with over half (55%) of the metropolitan projects and only a quarter (26%) of the other rural projects offering such services. Finally, it was found that 22 percent of the projects provided financial assistance to help pay for school related expenses of the Indian students.

These findings are relatively similar to the results of the descriptive evaluation of the Part A Program completed in 1978.[8] Results of that study were that: 62 percent of 813 projects surveyed had activities focused on Indian cultural concepts, heritage and language; 58 percent had remedial reading activities; 56 percent had guidance and counseling activities; 55 percent had activities focused on improvement of self-concept/self-image; 51 percent had activities focused on improvement of attitudes toward school; and 46 percent had remedial mathematics activities.

TABLE 4-8

PERCENTAGES OF PROJECTS OFFERING ACTIVITIES BY PROJECT LOCATION
(Weighted N=865)

Activity	On Or Near Reservation	Other Rural Area	Urban Area	Metropolitan Area	Overall
Tutoring	73%	81%	82%	90%	80%
Cultural instruction	51	61	76	83	64
Counseling	55	40	35	61	48
Home-school liaison	39	26	37	55	38
Financial aid	25	13	25	17	22

Note: The actual number of projects in the sample was 115. Data were weighted to make the findings statistically representative of all projects.

A brief description of each of the five general areas of project activities for the 1981-82 school year is presented below.

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[8] "A National Evaluation Survey of Projects Funded under Title IV, Part A of the Indian Education Act of 1972." Communications Technology Corporation, 1978.

Tutorial/Special Academic Activities.[9] A primary purpose of the Indian Education Program has been to improve the academic skills of Indian children. According to the Part A regulations, a wide variety of supplemental academic activities may be provided to Indian children, including individual or group instruction in basic academic skills, accelerated training for "gifted" students, and remedial instruction.

Four-fifths (80%) of the Indian education projects provided some special academic activities for Indian students. A mean of 32 percent of the Indian students (median of 52 students per project) in districts with Part A academic activities was reported by project directors to have received tutoring or some other academic service from the Part A Program.

Two-thirds (66%) of the projects with tutorial and other supplemental academic activities focused tutoring directly on classroom material. However, one-third (31%) of the projects provided academic activities in areas similar to those covered in classroom instruction but which were not directly related to current assignments. Overall, most of the projects with academic component offered tutoring in "basic" subject areas, including reading (89%), writing (62%), mathematics (90%), and other academic areas (48%). Over two-thirds (67%) of the academic projects held tutoring sessions during school hours.

The tutoring programs appear to have been relatively intense, given their supplemental nature. The typical student attended a median of four sessions per week, with a median duration of 35 minutes per session.

A majority (57%) of tutored students were in grades K-6; 36 percent were in grades 7-9, and only 7 percent were in grades 10-12. Slightly over half (52%) were male. At the start of the tutoring, two-thirds or more of the tutored students were rated by their tutors as low or below average relative to their peers in reading and mathematics.

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[9] Greater detail on Part A tutoring/special academic activities and impacts is presented in Chapter 6.

Nearly all (94%) of the projects with academic components hired tutors, with only a few (6%) relying on volunteers. Tutors were predominently Indian (68%) and female (84%), and were an average of 33 years of age. Additionally, nearly all (96%) academic projects used adult tutors, with only a few using cross-grade (8%) or peer tutoring (7%). Over two-fifths (44%) of the academic projects assigned tutors primarily on a one-to-one basis. Nearly half (47%) relied upon small group instruction (one tutor with several students). A small proportion (9%) of the academic projects used both methods interchangeably.

Cultural Instruction and Activities.[10] Cultural instruction and activities are perhaps the most unique aspect of Part A programming. The Part A Program specifically mentions cultural activities in the regulations as an authorized area of programming, and only 20 percent of the school districts with a cultural program provided similar activities prior to Part A. The Part A regulations cite instruction in tribal heritage, Indian history, and political organization; traditional Indian art, crafts, music, and dance; and the teaching and preservation of Indian languages as examples of permissible program activities which are designed to meet the "special educational and culturally related academic needs of Indian children."

Sixty-four percent of the Part A projects offered some type of cultural program, and a mean of 56 percent of the Indian students in districts with Part A cultural programs were reported to have participated in a class or activity offered through the cultural program. Nearly all (96%) of these projects provided cultural instruction for students from more than one tribe. The cultural programs studied served children from a median of nine tribes.[11] As shown in Table 4-9, cultural awareness (32%) and improved self-esteem as an Indian (25%) were most frequently reported as the single most important goal of the culturally related activities offered by project.

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[10] Greater detail on cultural programs and their impacts is presented in Chapter 8.

[11] It should be noted, however, that multitribal enrollment is typically dominated by one group, with only a small representation of each of several other tribes.

A median of 60 Indian children per project participated in a median of two hours per week in activities sponsored by the cultural programs. The typical cultural program operated throughout the school year. Although most (77%) cultural projects offered a portion of their cultural instruction and activities during the regular school day, most (a median of 70 percent) of the time spent by students on cultural activities was after school or on weekends.

TABLE 4-9

PART A CULTURAL PROGRAMMING:
PRIMARY GOALS
(Weighted N=550)

Culturally Related Goals	Percentage of All Cultural Programs*
Increase cultural awareness	32%
Improve self-esteem as an Indian	25
Preserve and pass on tribal heritage and culture	15
Increase value and respect for Indian (tribal) heritage	11
Increase awareness of historical contributions of Indians	8
Increase awareness of Indian tribal history	4
Learn Indian tribal language	3
Increase student involvement	2

*The actual number of sampled projects with a cultural program was 74. Data were weighted to make the findings statistically representative of all projects with cultural programs.

A high proportion of projects offered instruction and activities in a wide variety of areas. As shown in Table 4-10, nearly all projects with a cultural component offered arts and crafts instruction, comparative cultural studies, special events (e.g., field trips and Indian heritage week), and instruction in Indian cultural heritage.

All projects used local Indian community members in the cultural program as instructors or assistants in cultural instruction or activities. Nearly all projects also used Indian community members to help identify cultural needs (97%) and develop cultural activities (95%).

TABLE 4-10

CULTURAL PROGRAM ACTIVITIES
(Weighted N=550)

Area	Percentage of All Cultural Programs Offering Activities in Each Area*
Creative arts and crafts	98%
Comparative cultural studies	94
Special events	93
Indian (tribal) cultural heritage	93
Indian literature	89
Indian (tribal) history	82
Tribal governments	71
Language preservation	40

*The actual number of sampled projects with a cultural program was 74. Data were weighted to make the findings statistically representative of all projects with cultural programs.

Counseling Activities. In their effort to meet the educational needs of Indian students, 48 percent of the Indian education projects provided a wide variety of counseling services. These services were, for the most part, non-professional in nature and included personal counseling, vocational counseling, academic counseling, and assistance regarding post-secondary educational opportunities. These activities are allowable under Part A regulations as activities which directly or indirectly "provide additional educational opportunities" and are considered to be an important adjunct to the direct academic services provided by projects.

At the projects with counseling components, the staff members responsible for these services were asked to specify the concerns or problems most frequently encountered. Most frequently discussed with Indian students were: family problems (91%), problems with teachers (88%), grades (80%), continuation in school (74%), and the "future" (72%). (See Table 4-11.)

Counseling projects served a mean of 52 percent of enrolled Indian students, or a median of 148 Indian students, throughout the year. The counseling services were typically available the entire school year. Students were seen by counselors or

TABLE 4-11

INDIAN STUDENT CONCERNS OR PROBLEMS MOST FREQUENTLY DISCUSSED WITH PART A PROJECT COUNSELORS OR OTHER STAFF

(Weighted N=417)*

School Related Concerns/Problems	Percentage of All Counseling Projects Which Reported that the Topic was Frequently Discussed**
Problems with teachers or school personnel	88%
Problems with grades	80
Class scheduling problems	56
Problems about having time to study	52
Personal Concerns/Problems	
Family problems	91%
Decision making	67
Social conflicts	66
Getting along with friends	61
Depression	56
Money problems	56
Drug problems	54
Feelings about being an Indian	52
Alcohol problems	51
Problems about sex	32
Career or Future Concerns	
Whether or not to stay in school	74%
Problems about future	72
Vocational choice	54
Marriage	18

*Respondents were the Part A project staff persons responsible for counseling services at the 58 projects with counseling components. The data were weighted to make the findings statistically representative of all projects with counseling components.

**Respondents could select more than one topic. Thus, the percentages total over 100%.

project staffs providing counseling for a median of 10.4 contact hours. Family members had some contact with project counselors in 66 percent of the counseling projects.

In nearly all projects with counseling services, students were referred for non-career counseling by teachers (89%) and/or were self-referred (88%). In over two-thirds of these projects, students were also referred for non-career counseling by principals or administrators (79%) or by other guidance counselors (68%). In only a minority of these projects were students referred by project directors (32%) and parents (19%).

In general, project counselors were experienced in working with Indian students, and by the fall of 1981, 75 percent had had three or more years of involvement with the Indian education project in some capacity. However, most did not have formal training as guidance counselors. Indeed, slightly fewer than half (47%) of the counselors had completed high school. The remainder had completed some post-secondary education, a small minority (5%) held associate degrees, 15 percent held bachelor's degrees, and one-third (33%) had completed at least a master's degree. As non-professionals on the projects' staff, counselors often undertook various project responsibilities. One-third (35%) served as home-school coordinators, one-fourth (29%) as project coordinators, and one-tenth as a cultural instructor (12%) or Indian club advisor (8%). Frequently, they considered an important part of their job as being a "friendly face" in the school to which Indian students could relate.

Home-School Liaison Activities. Many Indian education projects encouraged parental involvement through home-school liaison activities. These consisted of home visits or other contacts by project staff to discuss school progress, attendance, discipline problems, or project and school activities. The Part A regulations specify home-school liaison services as a permissible activity to help schools meet the special educational and culturally related academic needs of Indian children. Involvement of parents is widely regarded to be an important factor in student academic achievement and in the functioning of healthy school systems.

Thirty-eight percent of the projects provided home-school liaison services. A mean of 40 percent of the Indian students (a median of 70 Indian students per project) was reported by project directors to have received home-school liaison services from Part A projects providing such services. Virtually all home-school coordinators made personal visits to homes (100%) and telephone calls to parents (91%). Three-fourths (74%) also visited with parents at the schools, two-thirds (64%) sent letters home, and over half (56%) communicated through the parent committee. Over three-fourths (78%) of the coordinators rated personal visits to homes the most effective method of communicating with parents.

The most frequently cited reasons for home-school contact were: student attendance (82%), project activities (73%), discipline (71%), and grades (71%). (See Table 4-12.)

TABLE 4-12

MOST FREQUENTLY CITED REASONS FOR CONTACT WITH PARENTS
BY HOME-SCHOOL COORDINATORS
(Weighted N=325)

Reason for Contact	Percentage of All Projects with Home-School Liaison*
Student attendance	82%
Indian education project activities for students	73
Student discipline	71
Student grades	71
School staff-parent conflicts or misunderstandings	64
Student health	59
School policies	44
Academic or extracurricular activities	35

*The actual number of sampled projects in the study sample with home-school liaison services was 51. The data were weighted to make the findings statistically representative of all projects with that component.

An additional service provided by the home-school coordinators in four-fifths (81%) of the projects was transportation to school or project related activities for students or parents. Over two-thirds (70%) of the projects offering transportation provided transportation to parent committee meetings; half (50%) provided students with transportation for medical reasons.

Financial Assistance. Indian education projects are also permitted by Part A regulations to provide funds for school-related items of Indian students which their parents cannot afford. Academic expenses, food, clothing, medical and dental care, and extracurricular costs are authorized uses. To receive these funds, the Indian education parent committee and the local education agency must establish eligibility criteria based upon financial need.

Twenty-two percent of the projects provided financial assistance for education-related expenses of students. The items most frequently subsidized by projects providing financial assistance were gym clothing (69 percent of projects providing assistance) and school supplies (51%) (see Table 4-13).

Four-fifths (79%) of the these projects defined eligibility for financial assistance by using the income criteria specified by the federally subsidized hot lunch program. Of the remaining projects, 9 percent set specific income levels, 5 percent required a signed statement indicating financial need, and 7 percet used one of several other methods. The total number of students served, total expenditures, and expenditures per student are shown in Table 4-13. Although assistance for gym clothing was provided by the largest percentage of projects, more students received assistance for everyday school supplies than for any other area. The largest expenditures per students were for dental care.

Summary

In this chapter, an overview of the Part A projects has been presented. This included a review of the characteristics of participating school districts as well as project participants, resources, staff, and activities. Nearly two-thirds (64%) of the projects were located in rural areas or on or near a reservation. The median total enrollment for project school districts was 1,878; the median Indian student enrollment was 156. Projects were primarily located in districts with a low (8%) proportion of Indian students and 73 percent of the projects were located in districts where at least half of the Indian students were from the same tribe.

Most (80%) projects were begun by school district initiative with the help of a parent committee. Three-fourths (72%) of the projects defined project participants through the use of OE Form No. 506.

TABLE 4-13

PART A PROJECTS WHICH PROVIDED FINANCIAL ASSISTANCE FOR SCHOOL RELATED ITEMS TO NEEDY CHILDREN
(Weighted N=188)

Area of Financial Assistance	Percentage of Projects Providing Financial Assistance*	Total Dollars Served Across Projects	Total Dollars Expended Across Projects	Expenditures Per Student
Gym clothing and supplies	69%	$ 6,486	$86,500	$13.34
School supplies (paper, pencils, etc.)	51	13,192	84,528	6.41
Art supplies	43	6,014	40,769	6.78
Athletic fees	42	2,278	13,260	5.82
School clothing	39	1,620	69,296	42.78
Field trips	39	3,381	45,633	13.50
Arts and crafts	37	2,703	29,450	10.90
Activity fees	33	1,395	7,175	5.14
Eyeglasses	22	200	16,000	80.00
Dental costs	19	935	97,384	104.15
Medical costs	15	204	10,186	49.93

*The actual number of sampled projects which provided financial assistance to needy children was 27. The data were weighted to make the findings statistically representative of all projects providing financial assistance.

Overall, projects supported a median of 1.35 full or part-time professionals and 1.88 full or part-time paraprofessionals, and project staff size increased with project size. Few projects had full-time directors. Project directors and support staffs typically had worked for the project for several years. The responsibilities of project support staffs often went beyond those required of the positions. Community volunteers also played an important role in the planning and operation of the projects.

The median project budget was $26,450. Nearly two-thirds (65%) of the projects were funded entirely by Part A funds. Most (77%) project funds were used for salaries and benefits. Most (95%) projects were in districts which also received Chapter 1 funds, and about half (47%) were in districts receiving Johnson O'Malley funds. Many districts also received funds from other federal education programs. However, a large proportion of Indian students in these districts did not participate in Chapter 1, Johnson O'Malley, or other federal education programs.

With respect to project activities, most (80%) projects offered tutoring or other special academic activities. Nearly two-thirds (64%) supported a variety of cultural instruction and activities. Most tutoring was held during the regular school day, whereas the bulk of cultural instruction and activities took place after school. Two-fifths (38%) of the projects supported home-school liaison activities and nearly half (48%) counseling. One-fifth (22%) provided financial assistance to parents for school-related expenses.

To clarify and confirm differences, in terms of project location, a series of stepwise discriminant function analyses was conducted. They showed key differences among projects in four locations (on or near reservation, other rural area, urban/non-metropolitan, and metropolitan) to be as follows:

Specifically, projects in the four locations differed as follows:

- Indian student density was highest in projects located on or near a reservation or in other rural areas;
- Tribal diversity was greatest in metropolitan projects;

- Indian student enrollment was highest in projects on or near a reservation and in metropolitan areas;
- Years of project operation was longest in projects on or near a reservation and in metropolitan areas;
- Cultural activities were most prevalent in urban, non-metropolitan and metropolitan projects; and
- Financial aid to parents was most prevalent in projects located on or near a reservation and in urban, non-metropolitan projects.

With this overview of the Part A Program as a background, the chapters which follow provide greater depth regarding project activities and their results. In the next chapter, a discussion of project objectives and activities in relation to locally defined needs is presented.

CHAPTER 5: LOCAL NEEDS, PROJECT OBJECTIVES AND ACTIVITIES, AND OVERALL SATISFACTION WITH IMPLEMENTATION OF SCHOOL OFFICIALS AND THE INDIAN COMMUNITY

The primary purpose of the Part A Program is to provide assistance to LEAs in addressing the "special educational or culturally related academic needs" of American Indians and Alaska Natives. In evaluating the impact of this Program, it therefore becomes important to ask how these needs are being determined at the local level, and what is being done by LEAs to address these needs. That is, prior to assessing the impact of the Part A projects, it is important to assess the appropriateness of the activities being performed, so that the level and extent of these impacts can be understood in context. In this chapter, these issues are examined using the information gathered at the 115 Part A projects visited for this study.

More specifically, the chapter provides a description of project needs assessment processes and results, a discussion of the relationship of project needs, objectives, and activities from the needs assessment perspective, and then a discussion of needs and activities from the perspective of primary and secondary objectives as reported by project directors. As will be shown, these two perspectives yield quite different pictures of the local project planning processes. In one case, the impression is of projects which are tightly planned and focused, while from the other, the impression is of projects which are rather diffuse and given to covering most of the popular rhetorical bases.

The chapter also presents the results of asking project directors and local Indian leaders not directly associated with the Part A project or local school district what they thought were "culturally related academic needs" in their areas. During the evaluation's design phase, staff of the Indian Education Program Office in the Department of Education and several Congressional staff members indicated that they had spent many hours trying to determine what was the real meaning, if any, of this phrase. Various accounts of the origin of the phrase were given to members of the evaluation's design team, and it was, therefore, decided it would be informative to ask knowledgeable Indian leaders at the local level what it meant to them. It was felt this would be of interest in its own right, and also as a basis for assessing the appropriateness of specific project activities for the needs of the locale.

Finally, ratings of satisfaction with the project are presented as one indicator of project effectiveness. These ratings were obtained from district administrators, principals, project directors, parents, and tribal and community leaders. The ratings are presented in this chapter to serve as a framework for the more specific impact data which follow in subsequent chapters.

The findings in this chapter are based on a review of local project needs assessments available and summarized during the site visits, surveys of project directors and other individuals involved with the project, and surveys of leaders of local Indian communities or tribal organizations who were not directly affiliated with the Part A project or school district.

Needs Assessment Processes

During visits to the sampled projects in the fall of 1981, project directors were asked to indicate the extent to which various groups had been involved in determining the needs of the Indian students for that project year (1981-82). In response to this question, they rated the parent committees and the project staffs as having the greatest involvement; Indian students, their parents, and school staffs as having somewhat less involvement; and Indian tribal or community leaders as having the least involvement. These results are shown in Table 5-1. Each project director was also asked to indicate when there had last been a formal -- verbal or written -- needs assessment in his or her school district of Indian parents, teachers and/or school staff, Indian students, and Indian community members. As shown in Table 5-2, most project directors stated that the needs of each of these groups had been assessed within the past twelve months.

In addition, project directors were asked about the methods they used in determining Indian students' needs, and which methods they considered to be the most effective. The results, presented in Table 5-3, show that the most frequently used methods were parent committee discussions; teacher and school staff surveys of community members, and analyses of test results, grades and/or attendance; student surveys; and project staff discussions. The methods

TABLE 5-1

EXTENT TO WHICH DIFFERENT GROUPS WERE INVOLVED IN DETERMINING INDIAN STUDENT NEEDS FOR THE 1981-82 PROJECT YEAR AS REPORTED BY PROJECT DIRECTORS*

(Weighted N=865)

		Percentage of Projects		
Relevant Group	Mean Involvement	Greatly Involved	Somewhat Involved	Not Involved
Parent committee	2.88	88%	12%	0%
Project staff	2.74	78	18	4
Parents	2.49	50	49	1
Indian students	2.41	45	51	4
School staff	2.30	36	58	6
Indian tribal/ community leaders	1.83	19	45	36

*The rating scale was: 3 = Greatly involved; 2 = Somewhat involved; and 1 = Not involved.

Note: The row percentages in this table total 100%. The number of projects in the sample was 115. Data were weighted to make the findings statistically representative of all projects.

TABLE 5-2

TIME SINCE LAST NEEDS ASSESSMENT OF RELEVANT GROUPS AS REPORTED BY PROJECT DIRECTORS

(Weighted N=865)

	Percentage of Projects			
Relevant Group	Within Last 12 Months	13-36 Months Ago	Over Three Years Ago	Never
Indian students	84%	14%	1%	1%
Indian parents	81	17	1	1
Teachers/school staff	70	25	2	3
Indian community	66	17	4	13

Note: The row percentages in this table total 100%. The actual number of projects in the sample was 115. Data were weighted to make the findings representative of all projects.

TABLE 5-3

EXTENT TO WHICH DIFFERENT METHODS ARE USED FOR NEEDS ASSESSMENT, AND RATING OF THE UTILITY OF EACH
(Weighted N=865)

Methods	Percentage of Project Directors Reporting Use of Method*	Percentage of Project Directors Rating Method as Most Useful
Parent committee discussions	96%	19%
Teacher/school staff surveys	84	5
Analysis of test results, grades and/or attendance	83	9
Student surveys	82	3
Project staff discussions	81	3
Mail survey of parents	65	8
Informal discussions with community	59	1
Public hearings	31	1
Door-to-door surveys of community members	26	10
Project evaluations/ annual reports	10	1
A combination of methods	NA**	41

*The column percentages total more than 100% because project directors could indicate more than one method. The column percentages in the second column total 100%.

**NA = Not applicable

Note: The actual number of projects in the sample was 115. Data were weighted to make the findings statistically representative of all projects.

considered to be most useful were parent committee discussions, door-to-door surveys, and analyses of test results, grades and/or attendance. Overall, the relative frequencies by which certain methods were used were related to their ratings of usefulness. That is, the most frequently used methods were also rated useful. However, although door-to-door surveys were considered among the most useful methods for determining Indian student needs, this method was rated among the least used. This is likely due to the fact that door-to-door surveys can be time consuming, costly, and difficult to carry out as compared with other methods for assessing needs.

Student Needs Identified By Projects

During the fall site visits, a copy of each project's most recent needs assessment was reviewed and the identified needs recorded. These data were then classified into 18 distinct categories of needs, as listed in Table 5-4. The percentage of projects expressing specific needs are shown in Column I of that table. The most frequently specified needs were basic academic skills (88 percent of projects) and general Native American culture/history (69%). Another frequently-cited project need was guidance/career counseling (40%). Each of the remaining needs was cited by 20 percent or fewer projects. No statistically significant or meaningful relationship was found between specific needs and project funding level, project location (on or near a reservation, rural, urban, or metropolitan area), and geographic region of country. That is, these needs were stated by projects regardless of their characteristics.

Relationships Among Project Needs, Project Objectives, and Activities

The extent to which projects developed objectives and carried out activities to address the stated needs is also shown in Table 5-4. The data on objectives and activities were provided by questionnaires completed by project directors during the fall site visits, and were content analyzed in terms of the 18 categories of project needs. As indicated in Table 5-4, the number of project needs which could be addressed by project objectives differs from the number which could be matched by project activities. The reason for this is that, in some cases, a stated need may not be addressed by a single project activity but may instead be an aspect of all or most project activities. Such is the case, for example, with self-concept. Similarly, some specified needs may be addressed by project activities, but not by a single project objective. This is the case with summer programs and extracurricular activities. Thus, of the 18 categories of project need, 16 could be matched by objectives and 14 could be matched by activities. Those cases in which no match was possible are indicated on Table 5-4 by an asterisk (*).

Columns II and III of Table 5-4 show the percentages of projects which, having specified a particular need as shown in Column I, addressed this need by an

TABLE 5-4

PROJECT NEEDS, OBJECTIVES, AND ACTIVITIES
(Weighted N = 865)

	I	II	III	IV	V
Needs Areas	Percentage of Projects Expressing Need	Percentage of Projects In Column I With Objective to Meet Stated Need		Percentage of Projects In Column I Which Carried Out Activities to Meet Stated Need	
		Part A Objective	Objective for Any Program for Indian Students	Part A Activity	Activity As Part of Any Program for Indian Students
Basic Skills	88%	90%	100%	87%	99%
General Culture/History	69	84	95	91	96
Guidance/Career Counseling	40	77	91	78	87
Parent Involvement	20	96	100	100	100
Parental Costs	19	82	95	82	92
Self-Concept	14	100	100	*	*
Decreased Absenteeism	13	100	100	*	*
Improved English	11	65	85	*	*
Native Language	11	60	100	47	76
Vocational Education	10	0	0	0	0
Extra Curricular Activities	8	*	*	13	82
Medical/Dental	8	75	93	50	79
Summer Programs	7	*	*	68	68
Curriculum Materials Development	7	7	28	0	28
Decreased Drop-Out Rates	4	100	100	*	*
Arts	4	32	32	32	32
Behavioral Counseling Referral	2	100	100	100	100
Community Involvement	1	0	0	0	0

*Need cannot be addressed by a single objective or activity, but may be addressed by multiple objectives or activities. Thus, a one-to-one match is inappropriate.

Note: The actual number of projects from which data were analyzed was 88; we were unable to access the most recent needs assessment data in the remaining 27 projects. Data were weighted to make the findings statistically representative of all projects.

objective of the Part A project alone (Column II) or by an objective of any program serving Indian students, including the Part A project (Column III). Columns IV and V contain data on the percentages of projects addressing needs through Part A project activities alone (Column IV) and the percentages of projects which addressed needs through the activities of any program serving Indian students, including the Part A project (Column V). As shown in this table, in nearly all participating school districts at least one program project specified an objective and carried out an activity to address each of the specified needs of their Indian students. For example, 90 percent of the districts expressing basic skills as a need developed an objective for basic skills specifically for their Part A project. Similarly, 87 percent of the projects expressing basic skills as a need carried out activities under the Part A project to address this need.

To further examine the overall extent to which specified needs were being addressed, a count was made of the number of needs within each project which were addressed by objectives and activities. An average number of addressed needs was then obtained across all projects. Of the 16 types of needs which projects could address by objectives, projects specified an average of 3.4 needs. Of these, a mean of 2.7 were addressed by the objectives of the Part A project alone, while a mean of 3.1 were addressed by the objectives of all school district programs serving Indian students, including Part A.

Of the 14 types of needs which projects could address by activities, projects specified an average of 3.0. Of these, it was found that a mean of 2.3 needs were addressed by the activities of the Part A project and a mean of 2.7 (89%) were addressed when the activities of all district programs serving Indian students were considered together with the activities of the Part A project. In sum, the data indicate that projects are attempting to meet their stated needs through the specification of objectives and implementation of activities.

Project Objectives and Activities Across All Part A Projects

In addition to analyzing project objectives and activities in relation to project needs, data on objectives and activities were examined across all projects, whether or not a particular need was officially stated by the project. These data are shown on Tables 5-5 and 5-6, and are based on responses to checklists presented to project directors. Objectives noted as either primary or secondary by at least 90 percent of all Part A project directors are: the development of positive student self-concepts, the increase in student pride in his/her ethnic heritage, and the increase in the involvement of parents in the education of their children. In fact, 12 of the 18 project objectives in the checklist to which the directors responded were noted by at least two-thirds of the project directors. However, the increase in student abilities in basic skills was the objective most frequently checked as a primary Part A objective (74 percent of projects), and it is this area (basic skills) that was cited by the largest percentage of projects (88%) in their needs assessments.

Activities noted by at least 70 percent of projects include liaison to parents, cultural heritage/awareness, and instruction and tutoring in mathematics and reading. Of the 18 activities, seven were carried out by over half of the projects. From these data, it can be concluded that projects were multi-dimensional in that they addressed many different areas in addition to the areas in which needs had been identified.

In addition to presenting data on objectives and activities separately, the data were examined to determine what percentage of projects which stated specific objectives had actually carried out project activities to meet these objectives. As above, these data were based on responses of project directors to checklists of objectives and activities. Results are shown in Table 5-7, and indicate that the large majority of projects are addressing their stated objectives through the implementation of activities. Some projects, however are not.

Finally, data were collected on the appropriateness of project objectives within the broader context of the overall educational goals of the schools served by the projects. This information was obtained from the principals, 84 percent of whom stated that project objectives were "very compatible" with the educational goals of their schools. Another 14 percent reported project and school goals to be moderately compatible, whereas only 2 percent indicated that project and school goals were only slightly or not at all compatible.

TABLE 5-5

PROJECT OBJECTIVES AS INDICATED BY PART A PROJECT DIRECTORS
(Weighted N=865)

Project Objectives	Percentage of Projects Indicating Primary or Secondary Objective	Percentage of Projects Indicating Primary Objective	Percentage of Projects Indicating Secondary Objective
Develop positive student self-concepts	94%	62%	33%
Increase student pride in own ethnic heritage	92	61	31
Increase the involvement of parents in the education of their children	90	51	40
Increase the involvement of the Indian community in this school system	89	49	41
Increase students' knowledge or awareness of American Indian history and culture	86	51	35
Improve attitudes toward school	86	62	24
Decrease student absenteeism	83	60	24
Increase student abilities in basic skills	81	74	7
Decrease student dropout rates	79	58	22
Provide guidance counseling	71	44	27
Assist students who are having behavioral problems in school	70	44	26
Develop culturally related materials	66	27	39
Provide in-service training for teachers	56	18	38
Increase students' ability to communicate in English	54	36	18
Increase students' knowledge and use of American Indian and Alaska Native languages	40	13	27
Provide financial support to defray school-related expenses	36	20	17
Provide drug and alcohol abuse education to students	30	12	18
Help students receive proper medical and dental care	27	9	19

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*Data were collected from 115 projects and weighted to make the findings statistically representative of all projects.

TABLE 5-6

PART A PROJECT ACTIVITIES AS INDICATED BY PROJECT DIRECTORS

Activities	Percentage of Projects*
Liaison to parents	82
Cultural heritage/awareness	75
Instruction/tutoring in mathematics	71
Instruction/tutoring in reading	71
Liaison to the American Indian/Alaska Native community	65
American Indian/Alaska Native arts and crafts	65
Counseling	56
Career development	46
Instruction/tutoring in areas other than math/reading	45
Assistance in defraying school-related costs	35
After school or extracurricular activities	33
Materials development	31
In-service teacher training	24
Summer programs	22
American Indian/Alaska Native language instruction	20
Curriculum design for regular school program	20
Medical/dental services	20
Vocational/technical skills	11

*Data were collected from 115 projects and weighted to made the findings statistically representative of all projects.

TABLE 5-7
PERCENTAGE OF PROJECTS CARRYING OUT ACTIVITIES TO MEET STATED OBJECTIVES

Objective	Activity	Percentage of Projects Stating the Objective Which Carried Out Activity
1. Increase students' knowledge or awareness of American Indian history and culture	a. Cultural heritage/ awareness	87%
	b. American Indian/Alaska Native arts and crafts	73
2. Increase student abilities in basic skills	a. Instruction/tutoring in mathematics	86
	b. Instruction/tutoring in reading	84
3. Provide guidance counseling (i.e., career opportunities, post-secondary educational opportunities)	a. Counseling	75
	b. Career development	62
4. Provide financial support for students to defray school-related expenses	Assistance in defraying school-related costs	93
5. Increase the involvement of parents in the education of their children	Liaison to parents of students involved in Part A	85
6. Increase the involvement of the Indian community in this school system	Liaison to the American Indian/Alaska Native community	74
7. Help students receive proper medical and dental care	Medical or dental referral services	68
8. Increase student knowledge and/or use of American Indian/Alaska Native languages	American Indian/Alaska Native language instruction	45

Indian Community or Tribal Leaders' Perceptions of Needs

At the visited projects, an interview was conducted with a tribal leader or leader of the Indian community who was judged to be concerned and knowledgeable about public school education of Indian students but not directly associated with the local school district or Part A project. Where possible, these leaders were chairpersons of the tribal or urban Indian center's education committee or their designee; otherwise they were individuals recommended by Indian parents as knowledgeable about educational matters. The community or tribal leaders were asked if they thought that any particular activities or areas of instruction should be added or dropped from the Part A projects. The data show that 54 percent felt some changes in instructional activities should be made, or dropped, while 43 percent said that no changes were needed (3 percent said "don't know"). Of those leaders who said that changes should be made, 48 percent suggested adding Indian cultural heritage and history, 20 percent suggested adding special activities such as field trips, and 8 percent suggested dropping Indian cultural heritage and history.

Community/tribal leaders were also asked whether they were completely satisfied with aspects of the project other than instruction, such as administration, staff, and the parent committee. The results show that 52 percent were completely satisfied, while 48 percent were not. The reasons of those who were dissatisfied are presented below. Of all community or tribal leaders:

- 34 percent said they were dissatisfied with the Parent Committee -- with 9 percent saying there is little interest by parents in the Program, 7 percent saying that better participation is needed by parents, 7 percent saying that their committees provide poor representation of the Indian community or tribe, and 6 percent saying that their committees have a very limited role in decision-making and policy-making.

- 26 percent said they were dissatisfied with program administration -- with 15 percent saying that better strategies were needed to reach out to serve all Indians, 9 percent saying too much time was spent in administration, 5 percent saying that not enough time is spent in planning, and 5 percent saying that more Indian staff is desirable.

- 22 percent said they were dissatisfied with project programs -- with 9 percent saying that classes and other activities are too limited in content and number, and 8 percent saying there was not enough participation by Indian tribal members in programs and activities.

- 18 percent said they were dissatisfied with the staffs -- with 9 percent saying there were not enough qualified Indian or tribal staff, 7 percent saying that the staffs were ineffective, and 3 percent saying that more "grass roots" Indian people are needed on staffs or assisting staffs.

Interpretation of the Term "Culturally Related Academic Needs"[1]

The information on project needs in the preceding analysis was taken from each project's most recent needs assessment. The study also collected data on how the phrase "culturally related academic needs," which appears in Part A legislation and regulations, has been interpreted by local projects and by the Indian community. To accomplish this, project directors were asked to specify (in response to an open-ended question) what they considered to be the three most pressing "culturally related academic needs" of Indian students. The responses, which are presented in Table 5-8, highlight the diverse manner in which the directors responded to this question. In addition, Indian community or tribal leaders were asked to indicate the "culturally related academic needs" of Indian students which differ from those of non-Indian students. Interestingly, 25 percent of the Indian community or tribal leaders said that Indian children do not have culturally related academic needs which are different from non-Indian children. The data show that 52 percent of tribal leaders from non-reservation rural areas said no differences exist, while only 14 percent of tribal leaders from other locations (on a near reservations, urban, metropolitan) said no differences exist.

Needs and Aspirtations Voiced by Parents and Community Leaders

Information concerning needs and aspirations for their children were collected from parents of Indian children and from community leaders. Specifically, parents and community leaders were asked to respond to the following question: "Thinking about your hopes and desires for your child(ren), what skills and knowledge do you think your child(ren) should develop in school by the time they graduate?" Table 5-9 presents the seven most frequently cited aspirations, and the proportion of each respondent group giving each response.

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[1] There are many possible approaches to defining this phrase and many points of view regarding its meaning. One approach and perspective is reported here.

TABLE 5-8
THE MOST PRESSING CULTURALLY RELATED ACADEMIC NEEDS OF INDIAN STUDENTS AS IDENTIFIED BY PROJECT DIRECTORS
(Weighted N=865)*

Culturally Related Academic Needs	Percentage of Project Directors Responding**
Native history	26%
English language arts	26
Career counseling	23
Attendance/dropout reduction	22
Math	22
General cultural instruction	21
General academic tutoring	19
Self image/esteem improvement	15
Arts and crafts	12
Native language arts	11
Oral language development	10
Home-school coordination	9
Socialization, social adjustment	9
Native American teachers as role models	6
Writing	4
Funds for school-related fees and expenses	2
Preschool education	1

* The actual number of projects in the sample was 115. Data were weighted to make the findings statistically representative of all projects.

** Column percents total more than 100% because project directors supplied multiple responses.

Foremost among the aspirations volunteered by each group was proficiency in the basic skills, with nearly half of the parents, parent committee members, and community leaders providing this response. The next most frequent set of responses pertained to the skills and knowledge necessary for productive post-secondary pursuits, either education or career related. In addition to specific skills or knowledge, Indian community members also valued emotional and psychological preparation for a productive life, notably the ability to plan ahead, the ability to adapt to the larger non-Indian society, the ability to realize self-potential, and the development of self-confidence and pride.

In short, Indian community members want schools to:

- Provide their children with proficiency in basic academic skills.
- Prepare them with the necessary knowledge and skills for higher education and/or for getting a job.
- Develop within their children the needed psychological and emotional characteristics for leading a productive life after graduation.

These needs voiced by parents and community leaders correlated moderately well with the needs specified by projects in their formal needs assessments. The first of the aspirations cited above relates to the expressed need for Part A projects to address basic academic skills. The second is associated with the statement of need for guidance and career counseling. The third implies the importance of cultural topics, although parents and community members in the present study did not explicitly suggest the need for cultural instruction.

Parents of project students were also asked to describe what they considered to be the one or two most important things that the Part A project had done for their children. Table 5-10 gives the most frequent responses, based on a content analysis of replies. A review of the tables shows that the parents' responses fall, for the most part, into the three most frequently cited areas of project need as indicated by needs assessments; that is, basic academic skills (responses 2, 6, and 7), Native American culture and history (responses 1, 4, 5, and, in part, 8), and guidance and career counseling (response 9). These findings indicate that, from the perspective of parents, Part A projects are providing appropriate activities.

TABLE 5-9

ASPIRATIONS OF INDIAN COMMUNITY MEMBERS FOR THE SKILLS AND KNOWLEDGE DEVELOPED IN SCHOOL BY INDIAN CHILDREN BY THE TIME THEY GRADUATE

Aspirations	Parents (N=1471)	Parent Committee Members (Weighted N=702)*	Indian (Tribal) Community Leaders (Weighted N=615)*
1. Proficiency in the basic academic skills (reading, writing, mathematics)	49%	52%	49%
2. Skills and knowledge in preparation for higher education (college or other post-secondary training)	36	24	20
3. Vocational skills; skills sufficient to obtain a job upon graduation	25	11	24
4. Ability to plan ahead/set goals	10	13	10
5. Ability to adapt to and get along in the larger non-Indian society (survival skills)	12	23	21
6. Knowledge and ability to realize self-potential, work toward personal goals, understanding of self (sense of own identity, sense of own past and of future plans)	15	11	10
7. Self-confidence, pride, self-respect	4	27	5

*The actual numbers of respondents were 200 parent committee members and 102 Indian/tribal community leaders. Results from these groups were weighted to make the findings statistically representative of all projects; the parent sample was self-weighted, so no weights were applied.

TABLE 5-10

MOST IMPORTANT THINGS THAT PART A PROJECTS HAVE DONE FOR INDIAN CHILDREN AS REPORTED BY PARENTS OF PROJECT STUDENTS (N=1098)

Project Accomplishments	As a Percentage of Parents Responding*
1. Increased student knowledge of Indian/tribal culture, heritage, language, history, values, etc.	36.5%
2. Provided students with academic or learning related assistance (tutors, tutoring, classroom aides, etc.)	25.7
3. Provided for school-related costs to parents or students (medical, dental, clothes, shoes, school supplies, etc.)	17.3
4. Increased student knowledge or abilities in arts and crafts	15.7
5. Provided special classes and activities for the students, including field trips, Indian clubs, and social gatherings	12.9
6. Provided students with academic assistance in reading, math, and other subjects	11.2
7. Provided students with assistance which gives them incentives to strive for better grades or become better students	10.8
8. Developed student self-esteem, self-awareness, pride, self-confidence	9.7
9. Provided home, school, or career counseling assistance or home-school liaison	7.8

*The percentages in this column total more than 100% because of multiple responses.

Satisfaction With Local Part A Project Implementation

The degree of satisfaction with the overall operation and specific aspects of Part A projects is one measure of project effectiveness. Thus, five respondent groups were asked questions about their satisfaction with their local Part A projects. Specifically, parents and parent committee members were asked how satisfied they were that the project was doing its job; district administrators, principals, and project directors were asked how satisfied they were with the quality of project activities. Responses are reported in Table 5-11. Overall, although difference across groups may be observed in the table, the majority of all respondents were satisfied with the job their local projects were doing or with the quality of their activities.

TABLE 5-11

SATISFACTION WITH OVERALL OPERATION OF THE LOCAL PART A PROJECT
BY SALIENT RESPONDENT GROUPS*

Project is Doing its Job	Not Satisfied	Mixed Feelings	Satisfied	Very Satisfied
Parent (N=1209)	6%	18%	44%	32%
	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied
Parent committee (N=798)	4%	7%	48%	41%
Quality of Project Activities	**Not Satisfied**	**Slightly Satisfied**	**Moderately Satisfied**	**Very Satisfied**
District administrator (N=693)	2%	4%	45%	50%
Principal (N=398)	3	10	32	56
Project director (N=865)	1	8	40	52

*The actual number of individuals responding were 267 parent committee members; 90 district administrators; and 108 project directors. Results were weighted to make the findings statistically representative of all projects. Data from principals and parents were self-weighted.

Parents and parent committee members were asked to comment on the rating of satisfaction they gave. Of those who elaborated, 41 percent of the parent committee members and 10 percent of the parents indicated that the projects were doing as well as possible (some satisfactory and unsatisfactory elements), but could do better if they had more funds or if funds were expended more effectively. Thirty-nine percent of the parents commented that they were satisfied with the project staff, programs, activities and/or the amount of time spent on project activities. Another 30 percent of the parent committee members commented that their projects were not serving all Indian students in their school districts, and 24 percent said they were not satisfied with project results, parental attitudes, or project activities, although they were satisfied with the intent of the programs and with the staffs.

Local administrators and project directors were asked about the effectiveness of their Part A projects in accomplishing their goals. The data show that 95 percent of both the district administrators and project directors indicated their projects had been moderately or very effective.[2] In addition, various individuals in each district were asked to rate the effectiveness of local Part A activities in specific areas. Perspectives obtained were from tribal leaders, parent committee members, project directors, principals, and district administrators.

Data were also collected from Indian tribal or community leaders concerning their satisfaction with the projects. The data show that 52 percent reported they were completely satisfied with the administration, the program of instruction, the staff, and the parent committee of their local Part A projects; 48 percent were not satisfied. Specifically, this latter group of tribal leaders indicated they were not satisfied with the parent committee (67%), the administration of the project (54%); the instructional aspects of the project (47%); the programs provided by the project (43%); and the project staff (36%).

The area of greatest dissatisfaction among the tribal or community leaders was with the parent committee. The reasons they gave for their dissatisfaction pertained to the committee's composition and/or its effectiveness. Specificially, they said:

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[2] Specifically the responses from district adminstrators were: ineffective = 1.3%, slightly effective = 4.2%, moderately effective = 52.5%, and very effective = 42.1%. Responses from project directors were: ineffective = 2.1%, slightly effective = 2.8%, moderately effective = 50.3%, and very effective = 44.8%.

• There should be better participation by committee members and parents.	44%
• The committee was not effective because the members had very little interest in the program.	44
• There was poor representation of the Indian or tribal community.	28
• The committee had very limited responsibility in project decision making or policy making.	23
• The committee was not informing parents about project purposes and activities.	18
• Parents, not the committee, were ineffective.	12

Parent committee members were asked a similar set of questions, and their responses reflected much greater satisfaction with their local project operations than did the responses of Indian community/tribal leaders. Overwhelmingly, the parent committee members indicated they were satisfied or very satisfied with five specific aspects of their projects: administration (89%), instruction (87%), programs (87%), staff (91%), and parent committee (78%). The perspectives of parents and tribal leaders are, of course, quite different. While tribal/community leaders have less opportunity to see the project in operation than the parent committee, their distance from the project may make them more neutral and objective reporters of Indian community views.

Summary

Prior to assessing the impact of the Part A projects, it is important to assess the relationships of the activities being performed to needs and project objectives, and, thus, to understand impacts in context. Therefore, this chapter examined project needs, objectives, and activities, and the relationships among them.

The data show that the parent committees and the project staffs were the most heavily involved in determining project needs, and that most projects had conducted a needs assessment within the last 12 months. The most frequently used needs assessment methods were parent committee discussions, teacher and school staff surveys, student test results, student surveys, and project staff discussions. The most useful method, according to project directors, was parent committee discussions.

The most frequently specified needs were basic academic skills, Native American culture and history, and guidance/career counseling. Nearly all projects specified objectives and either themselves carried out activities to address their stated needs, or were in school districts where these needs were being addressed by at least one program serving Indian students. Specifically, each project stated approximately three needs. Over all projects, 79 percent of these needs were addressed by the objectives of the Part A project, while 91 percent of the needs were addressed by the objective of at least one of all school district programs serving Indian students. Similarly, 78 percent of needs were addressed by the activities of the Part A project, while 89 percent of needs were addressed when the activities of all district programs serving Indian students were considered together.

According to project directors, the most frequently stated project objectives, both primary and secondary, are the development of positive self-concepts, the increase in student pride in his/her ethnic heritage, and the increase in the involvement of parents in the education of their children. The most frequently stated primary objective was in the area of basic skills. This matched the most frequently cited area of need as determined by needs assessments. The most frequently implemented activities are: liaison to parents, cultural heritage/awareness, and instruction/tutoring in mathematics and reading. The large majority of projects are addressing their stated objectives. Some, however, are not.

Data were also collected from Indian community or tribal leaders concerning whether or not they thought particular instructional activities should be added or dropped. Results show that 54 percent felt some activities should be dropped or added, while 43 percent said no changes were needed. Instructional areas most frequently suggested for addition were Indian cultural heritage and history. Tribal leaders were also asked if they were satisfied with aspects of the project other than instruction. Results indicate that 52 percent were completly satisfied and 48 percent were not. The most frequently reported area of dissatisfaction was the extent of representation and participation of the Indian community on project matters. As reported in the beginning of the chapter, community leaders was the group least involved in determining Indian student needs.

Project directors were asked what they considered the most pressing culturally related academic needs of Indian students. Native history and English language arts were the most frequently given responses. Four other areas were also frequently mentioned. These were: career counseling, attendance/dropout reduction, math, and general cultural instruction. Similarly, Indian community and tribal leaders were asked to indicate the culturally related academic needs of Indian students which differed from those of non-Indian students. The data show that 25 percent of the respondents said that Indian children do not have culturally related academic needs which are different from non-Indian children. On the other hand, 75 percent said differences do exist, and most (83%) of these respondents said the culturally unique academic needs of Indian students relate to Indian or tribal culture, history, and language.

Information was also collected from parents and community leaders concerning needs and aspirations for Indian children. Results were closely correlated with project needs assessments, as the most frequent responses given were proficiency in basic skills, and skills and knowledge in preparation for higher education and/or job training. Parents also indicated that the most important things the projects had done for their children were to increase their knowledge of Indian/tribal culture, heritage, language, and values and to provide them with assistance in their academic studies.

Most project directors, school administrators, principals, and parents were satisfied with the implementation of the projects. Indian tribal or community leaders were less satisfied, however.

In conclusion, the data on needs, objectives, and activities yield a mixed picture of Part A projects. Depending on the perspective, the data show a focused effort on a few needs, while also showing a diffuse effort covering many objectives and activities. More specifically, the data show that needs assessments have been adequately carried out by projects and that most needs are being addressed by project objectives and activities. For example, basic academic skills was the most frequently expressed area of need (88 percent of projects); it was also stated most frequently as a primary objective (74 percent of projects), and tutoring was the most prevalent project component. From a needs assessment perspective, the projects are clearly well-focused and addressing apppropriate local goals. From a different perspective, however, the data are less clear. Local directors reported their Part A projects had multiple and diverse objectives and were carrying out many different activities which often extended well beyond the results of their needs assessment. It may be that projects are responding to the real needs of a limited number of students (e.g. students with serious school attendance problems) or to needs judged important although difficult to document (e.g. student self-concept and pride). However, it may also be that staffs and parents are sometimes simply bowing to conventional wisdom and expending energies on problems which may or may not be serious in their locale. In sum, however, projects are carrying out needed and appropriate activities with which most project directors, school administrators, and parents were satisfied. An assessment of the results of these activities is the subject of Chapter 6 and the others which follow.

CHAPTER 6: ACADEMIC ACHIEVEMENT

The purpose of the Part A Program as defined in the legislation is to carry out activities to meet "the special educational and culturally related academic needs" of Indian students. Local Part A projects meet this broad mandate in a variety of ways, but the most frequent approach is the provision of special tutorial or other academic services to Indian students.

In this chapter, a description of the tutorial services is presented, along with data on student academic achievement. A variety of information concerning academic achievement was collected. Therefore, there are separate sections in the chapter dealing with achievement test scores, tutor ratings, student ratings, and ratings by parents, teachers, and Part A staff members.

The chapter begins with a description of the academic/tutoring activities of local Part A projects. The second section presents achievement test data collected on Indian students. The third section describes evidence of academic achievement cited by project staff. Next, ratings by tutors of student academic gains are presented. The fifth section describes the ratings of academic impact by parents, teachers, and Part A staff members. Ratings by students on the amount learned from project tutors are presented next. Then, the results of a meta-analysis of achievement test data spanning the past four decades are discussed. Finally, conclusions concerning Indian student academic achievement and the impact of Part A are presented.

Description of Part A Tutorial Activities

Approximately 80 percent of Part A projects were reported to have a formal academic component as part of their program activities. As shown in Table 6-1, these projects were more likely to be located in urban or metropolitan areas, and they had larger Part A grants than projects without an academic component. A comparison on a number of other descriptive variables of projects with an academic component and projects without an academic component is also shown on Table 6-1. The academic component of projects was basically tutorial and supplementary to the regular school program. Ninety-five percent of the projects

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TABLE 6-1

SELECTED CHARACTERISTICS OF ACADEMIC VERSUS NON-ACADEMIC PROJECTS
(N=865)*

	Number of Projects	Mean Number of Services**	Project Located in Urban or Metropolitan Area	Most Indians In Project Belong To Same Tribe	Density*** of Indian Students at Least 20%	Total Enrollment In District At Over 3246	Mean No. of Project Participants	Mean Funding Amount
Academic	690	2.55	38.2%	70.9%	35.0%	58.1%	236	$54,515
Non-Academic	175	1.75	23.9%	83.5%	54.0%	18.4%	232	$46,858

*The actual number of projects from which data were collected was 115 (90 with academic programs, 25 without). Data were weighted to make the findings statistically representative of all projects.

**The four services are cultural instruction, counseling, home-school coordination, academic instruction/tutoring.

***Density is the number of Indian students enrolled in the district divided by total enrollment.

reported designing academic activities solely to supplement existing classes, and 5 percent indicated they had programs which took the place of regular school classes (e.g. a special remedial class in reading or math).

Academic (tutorial) activities were rated as extremely important relative to other Part A offerings by 82 percent of staff in projects with academic components, and as moderately important by an additional 14 percent. The main purpose of tutorial activities was stated to be the improvement of academic skills by students, although there were a number of secondary purposes, such as the enhancement of student self-concepts, the improvement of student attitudes toward school, and the provision of support and encouragement to students.

1. Tutoring Sessions

Tutorial and other supplemental academic activities were generally held in school during school hours, and were oriented to regular classroom instruction. Two-thirds (66%) of the projects with a tutoring component focused tutoring directly on classroom material. However, one-third (31%) of these projects provided tutoring which, although in the same content areas covered in regular classrooms, was not linked directly to classroom materials. Most of the tutoring projects offered tutoring in several subject areas; 90 percent offered tutoring in mathematics, 89 percent reading, 62 percent in writing, and 48 percent in other academic areas. Two-thirds (67%) of the tutoring projects held tutoring sessions during school hours.[1] Seventy percent of the projects with a tutoring component held tutoring sessions in schools; the remainder held sessions in community centers (17%), churches (7%), or students' homes (6%).[2]

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[1] Tutoring programs located in metropolitan (40%) or in urban, non-metropolitan (41%) areas were more likely to hold tutoring sessions outside regular school hours than programs on or near reservations (16%) or in other rural areas (3%).

[2] A greater proportion (61%) of projects in urban, non-metropolitan areas held tutoring in locations outside the school than was the case for projects located on or near reservations (26%), in other rural areas (12%), or in metropolitan areas (37%).

The scope of tutoring activities was usually determined by someone other than the tutor -- by the project director in nearly half of the tutoring projects (46%) and the student's teacher in over a quarter (27%). A variety of materials was used in the sessions: class assignments, texts, or workbooks (87%); tutor-prepared materials (75%); materials purchased by the project or school (58%); games or other informal materials (56%); and programmed materials provided by the project or school (43%).

The tutoring programs appear relatively intense, given their supplemental nature. Most (81%) programs operated throughout the school year. The typical student attended a median of four sessions per week, with a median duration of 35 minutes per session. Students received a mean of 66 hours of tutoring during the school year.[3] According to the tutors, most (88%) of the students attended regularly.

Over two-fifths (44%) of the tutoring projects assigned tutors primarily on a one-to-one basis. Nearly half (47%) relied upon small group instruction (one tutor with several students). A small proportion (9%) of the tutoring projects used both methods interchangeably.

Tutors, students, and the students' families often developed relationships beyond tutoring. In 75 percent of the tutoring projects, tutors had informal contacts with students outside the sessions. One-third (32%) of the tutors took students on outings and field trips as a regular part of the tutoring program; 21 percent took students on informal outings. In 56 percent of the tutoring projects, tutors were acquainted with the students' parents; in 15 percent, frequent tutor-family contact was reported. Thus, many tutors were relatively close to their students, a factor which may have affected their ratings of performance.

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[3] The mean number of hours of tutoring received throughout the school year by students on or near reservations (71 hours) and in other rural areas (79 hours) was higher than that received by students in urban, non-metropolitan (48 hours) or metropolitan (38 hours) areas.

2. Student Recruitment, Assignment, and Termination

In 52 percent of the tutoring projects, students were typically referred for special help by teachers or other school staff on the basis of their informal assessments of the student's academic progress. Achievement test scores were used as the primary basis for referral in one-third (31%) of these projects, while in only 6 percent of the projects did students enter tutoring primarily on their own initiative. Projects assigned students to tutors: on the basis of an informal judgment of compatibility by the teacher or tutor coordinator (36%), as tutors became available (33%), or on the basis of specific criteria (28%), such as matching the speciality of the tutor with the needs of the student.

Student progress was monitored in tutoring projects by the use of one or more methods (see Table 6-2). Most (86%) of these projects terminated tutoring when a student reached an acceptable level of academic achievement, although 26 percent terminated tutoring if a student was irregular in attendance.

TABLE 6-2

METHODS USED TO MONITOR ACADEMIC PROGRESS OF STUDENTS IN TUTORING
AS REPORTED BY STAFF OF PROJECTS WITH ACADEMIC COMPONENT
(Weighted N=690)*

Methods	Percentage of All Projects with Tutoring Component
Tests	50%
Informal interviews with tutor/teacher	49
Periodic write-up of student progress by tutor/teacher	47
Formal interviews with tutor/teacher	25
Tutor/teacher grading system	19
Daily log books or records	6
No monitoring was done	5

*The actual number of projects with tutoring in the sample of 115 projects was 90. Data were weighted to make the findings statistically representative of all projects.

3. Characteristics of Tutors and Tutor Training

Tutors had an average age of 33 years, and most were female (84%) and Indian (68%). Nearly half (46%) tutored at the elementary level (grades K-6), 32 percent at the secondary level (grades 7-12), and 22 percent at both levels. Cultural sensitivity and awareness, special academic abilities, and sensitivity to student needs were most often cited by tutors as the special abilities they possessed which were useful in tutoring (see Table 6-3).

TABLE 6-3

SPECIAL BACKGROUND OR SKILLS CITED BY TUTORS
AS HELPFUL IN TUTORING SESSIONS
(N=311)

Background or Skill Cited by Tutors	Percentage of Tutors*
Special ability in academic area	35%
Cultural sensitivity and awareness as an Indian	32
Sensitivity to student needs; relating well to students	29
Teacher certification or former teacher	18
Knowledge of Indian heritage and culture	18

*Total percentage is more than 100% as respondents could respond to more than one area.

In most (94%) projects, tutors were paid as hired employees; only 6 percent of the projects used volunteers as their primary source of tutors. Project directors selected or hired tutors in 60 percent of the projects, although others, such as the parent committee or district administrators, may also have been involved in the hiring or approval of tutors in some projects. One-third (34%) of the tutors became aware of the tutoring position because they worked for the school or district. Other tutors learned of the opening through advertisements (10%), were recruited by the parent committee (10%), were referred by a teacher (8%), or volunteered (7%). Nearly three-fifths (57%) of the projects provided training for tutors in a variety of areas (see Table 6-4).

TABLE 6-4

TOPICS COVERED IN TUTOR TRAINING SESSIONS AS REPORTED BY
PROJECT STAFF
(Weighted N=394)*

Topic	Percentage of Academic Projects with Training Which Cover Topic
Subject matter content (review of area to be tutored)	58%
Cultural sensitivity	58
Techniques of teaching subject matter	56
Use of tutoring materials	56
Methods for motivating and maintaining student interest	54
Administrative procedures	52
Social skills (how to build rapport with student)	49

*The actual number of projects providing training was 44. The data were weighted to make the findings statistically representative of all academic projects.

4. Description of Students

As part of the study's data collection, the tutors in each of the Part A projects providing tutoring services were asked to fill out two forms providing information about each student they tutored. One form was filled out in the fall or when the child entered the tutoring program; the second form was filled out when the child left the tutoring program or during the spring data collection. The results from these data are reported in this section.

Students from all grade levels received tutoring, although the majority of children receiving tutoring were at the elementary level. Nearly three-fifths (57%) of tutored students were in grades K-6, while over one-third (35%) were in grades 7-9. Only 7 percent were in grades 10-12. Slightly over half (52%) of the tutored students were male. Two-thirds (66%) of the students were in their first year of tutoring; 23 percent were in their second year. One-third of the students were tutored primarily on a one-to-one basis; two-thirds were instructed primarily in small groups.

A majority of students were tutored in math (65%) or reading (57%), while a small proportion were tutored in writing (21%), social studies (15%), or in other areas (18%). More than two-thirds of the students who received tutoring in reading and mathematics were rated by tutors as low or below average relative to their peers at the start of the tutoring sesions (see Table 6-5). A majority of students were also rated low or below average in other subject areas in which they were tutored. From the perspective of the tutors, then, most of their students were in need of remedial instruction at the start of the tutoring sessions.

TABLE 6-5

ACADEMIC LEVELS OF TUTORED STUDENTS AS RATED BY TUTORS
AT THE START OF TUTORING SESSIONS, (FALL 1981)
(N=3528)

			Academic Levels of Students				
Subject Area	N	Percentage of Students Tutored in Area*	Low	Below Average	Average	Above Average	Superior
Reading	2,023	57%	27%	47%	22%	3%	1%
Mathematics	2,293	65	21	48	26	4	1
Writing	753	21	24	34	35	6	1
Social studies	518	15	23	36	33	5	3
Other	646	18	32	37	22	8	1

*Column percentage totals more than 100% as students were tutored in more than one subject.

Tutors also rated students regarding their school conduct, self-confidence, and interest in school (see Table 6-6). Roughly half of the tutored students were rated as average in all three areas. In school conduct, roughly as many were rated above average or superior as were rated below average or low. However, a much larger proportion of tutored students were rated low or below average in self-confidence and interest in school than were rated above average or superior. Thus, at the start of the tutoring sessions, the tutored students were probably typical of students in their districts with respect to school conduct, but may have been somewhat lower in self-confidence and interest in school.

TABLE 6-6

SCHOOL CONDUCT, SELF-CONFIDENCE, AND SCHOOL INTEREST OF TUTORED STUDENTS AS RATED BY TUTORS AT THE START OF TUTORING SESSIONS (FALL 1981)
(Student N=3258)

	Low	Below Average	Average	Above Average	Superior
School conduct	8%	19%	45%	14%	14%
Self-confidence	7	29	51	10	3
Interest in school	10	26	53	9	2

Indian Student Achievement Test Scores[4]

Academic activities, although by regulation supplementary to the regular school program, are a central focus of most Part A projects. Indeed, improvement in basic skills was a need cited by 88 percent of the projects, and 81 percent of project directors indicated that increasing student abilities in basic skills was a project objective.

The task of assessing the impacts of these efforts fairly, however, is not straightforward, and has been the subject of much discussion. In particular, the appropriate role of academic achievement test scores as a measurement tool was an issue from the start. It was initially presumed that test scores would serve as the primary source of impact information. However, after a thorough review of relevant literature, observing many projects, and holding discussions with leading testing and evaluation experts, and with the strong recommendation of the study's Technical Advisory Panel, heavy reliance on test scores was deemed inappropriate. Essentially, it was concluded that the academic "treatments" provided by most projects were not appropriately assessed with standardized tests of basic academic skills. Treatments were frequently either too specific

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[4] See Monograph 1, Academic Performance, Attendance, and Expectations of Indian Students in Public Schools, for a more extensive exposition of this topic.

(e.g., tutoring in a particular subtopic of a particular class) or too diffuse (e.g., including some language arts instruction as part of an Indian student club's activities) to be captured by broadly focused standardized tests, and some tutoring focused on social studies, science, and other academic subjects which such tests do not address. Rather, it was decided that although achievement test data were important for the study overall, they would be used primarily to provide a description of the current status and progress of Indian students with respect to academic performance, and to perform cross-sectional analyses to see if relationships between test scores and general program characteristics could be found.

It was decided, therefore, to collect existing reading and math standardized test data for the spring preceding the site visit (i.e., spring 1981) from all projects where they were available. Given the purposes for which they would be used and the considerable costs and respondent burden involved, direct testing of students was not considered justified.[5]

Thus, as part of the evaluation, existing achievement test data were collected on a sample of 6,425 Indian students who were in grades 3-11 in the spring of the 1980-81 school year. Data were collected for all students at the sampled projects who had completed a student questionnaire in fall of 1981 and who had been tested by their LEAs on any one of several standardized achievement tests in the spring of 1981.

Reading and mathematics standardized achievement test scores came from 13 tests and 10 forms or levels of those tests, representing a total of 23 different instruments. The 1978 edition of the California Achievement Test (CAT) was the most frequently administered test (32 percent of the Indian and Alaska Native student sample). The 1978 edition of the Science Research Associates (SRA) test was administered to 21 percent, followed by the 1973 Stanford Achievement Test (SAT), which was used with 14 percent, and the 1973 Comprehensive Test of Basic Skills (CTBS), used with 10 percent of the evaluation sample. These tests accounted for 77 percent of the sample.

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[5] Data for only the previous year were sought because of prior experience in seeking multiyear data from school files. Year-to-year changes in district testing policies, alternate grade testing, and the general condition of many school files make it infeasible to seek retrospectively multiyear data in a national samples of LEAs.

The achievement test data for the sampled students were transformed into T scores, in which the population mean is equal to 50, and the population standard deviation is equal to 10. Separate T scores were calculated for achievement tests in reading and mathematics. The results were examined at two levels of analysis (student vs. project) in order to determine what factors predicted differences among students and among projects. The analytic approach used was a multivariate general linear model.

Table 6-7 contains summary statistics on the test scores obtained. Both reading and mathematics mean scores were approximately 2.8 T score points (about one-third of a standard deviation) below the population mean of 50.

TABLE 6-7

SUMMARY T SCORE STATISTICS FROM STUDENT SAMPLE ON READING AND MATHEMATICS ACHIEVEMENT TESTS

	Reading	Mathematics
Mean	47.11	47.29
Standard deviation	9.49	9.46
Range (low-high)	4-86	6-87
Mode	44.00	46.00
25th percentile	40.00	40.00
Median (50th percentile)	46.84	46.67
75th percentile	54.00	53.00
Number of students	6,374	6,293

Table 6-8 presents the distribution for reading and mathematics test scores in terms of the number of standard deviations above and below the national mean of 50. The table indicates that in the area of reading, 40.8 percent of American

Indian and Alaska Natives are at or above the national norm (T score = 50), while 59.2 percent are below that level. Similarly, in mathematics, 38.8 are at or above the national norm, while 61.2 percent are below it. Slightly over 97 percent of Indian student scores fall within the range of ±2 standard deviations from the population mean. This is very similar to the normal distribution result of 95 percent of the population's scores falling within that range. It therefore appears that the academic performance of Indian and Alaska Native students in reading and mathematics is slightly lower than that of all students in public school settings, but distributed in approximately the same manner.

TABLE 6-8

DISTRIBUTION OF READING AND MATHEMATICS
STANDARDIZED ACHIEVEMENT SCORES AMONG INDIAN STUDENTS
BY STANDARD DEVIATION RANGE

Standard Deviation (S.D.) Distance From Mean Score of 50; Score Range in T Scores	Reading Test Scores	Mathematics Scores
More than 4 S.D. below mean (6-9)	0.08%	0.06%
Between 3-4 S.D. below mean (10-19)	0.28	0.13
Between 2-3 S.D. below mean (20-29)	1.71	1.26
Between 1-2 S.D. below mean (30-39)	20.10	20.42
1 S.D. or less below mean (40-49)	37.05	39.31
At national mean level (50)	3.36	4.26
1 S.D. or less above mean (51-59)	27.47	23.15
Between 1-2 S.D. above mean (60-69)	9.40	10.49
Between 2-3 S.D. above mean (70-90)	0.52	0.78
More than 3 S.D. above mean (80-87)	0.03	0.14
TOTAL STUDENTS	6374	6293

Table 6-9 presents test score data by grade. As shown, mean scores declined from the elementary through the secondary grade levels. The data also show that in terms of project setting, students in districts on or near reservations scored slightly lower than other Indian students, and those in metropolitan areas slightly above; and that students in the southwest, Alaska, and the Dakotas scored slightly lower than other Indian students and those in the Northeast, California, and the upper Midwest (Wisconsin and Minnesota) score slightly above. The data also show that there are differences associated with socioeconomic status. Indian students receiving free or subsidized school lunches had mean scores of 45.84 in reading and 45.77 in math, as compared to other Indian students who had mean scores of 48.94 in reading and 47.83 in math.

TABLE 6-9

DISTRIBUTION OF READING AND MATHEMATICS STANDARDIZED ACHIEVEMENT TEST SCORES AMONG INDIAN STUDENTS BY GRADE LEVEL

	Reading		Math	
Grade*	n	Mean	n	Mean
3	886	48.16	882	48.01
4	963	47.41	958	47.88
5	844	47.41	837	48.32
6	825	46.74	821	47.08
7	883	46.92	881	46.74
8	564	47.10	532	47.19
9	496	46.89	484	47.02
10	456	45.11	456	46.54
11	378	44.94	374	45.23

*The focus of the evaluation was on students in grades 4-12 in 1981-82; the achievement test data were from the spring 1981 administration, when those students were in grades 3-11. Grade level information was missing on approximately 1% of the sample.

A series of multivariate general linear model analyses was conducted to determine if certain types of school district contextual characteristics, project characteristics, program variables, and student characteristics were associated with students' reading and mathematics scores. Among the variables examined were:

- The number of Indians in the school district;
- Whether one or more tribes were represented by the Indian students in the projects (a measure of tribal homogeneity);
- The geographic region (one of five) corresponding to the Indian Education Program's Resource and Evaluation Center in which the project was located;

- Project location (on or near a reservation, other rural area, urban area, metropolitan area);
- Proportion of Indian students in total student body;
- Language used in the home;
- Presence of a cultural component within the project;
- Presence of an academic component within the project; and
- Student age, sex, grade, and socioeconomic status.

Analyses were conducted separately for those students in grades 4-6 or 7-12 during the study year (i.e., grades 3-5 or 6-11 in the year the tests were administered). A similar pair of analyses was conducted at the project level by aggregating student data in those projects.

The overall conclusion from these analyses was that virtually all of the factors hypothesized as having a relationship with achievement (including Program participation) were not related to academic achievement test scores in any meaningful way, either at the student or project levels. Some relationships were statistically significant, an expected finding in view of the large number of cases present at each set of grades. However, the relationships found were not strong ones.[6]

In addition, linear models were developed to determine if students who did not receive tutoring, compared to those who did receive it for remedial or enrichment purposes, had significantly different levels of test scores. One analysis was conducted for students receiving assistance in reading and another analysis for those receiving mathematics assistance. Student grade level was also used, since those receiving assistance in one grade might have been different from those receiving assistance in another. These analyses were only conducted for the 7-12 grade range in projects which had a tutoring component. The covariates analyzed also used sex, socioeconomic status, and the project's region of the country as covariates.

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[6] The largest relationships and the percentage of explained variation found for each were as follows: At the student level, grades 4-6: R&E Center region and number of Indian students in the project (omega-squared = 6.6%); R&E Center region and project participation status (3.4%). At the student level, grades 7-12: home language and project participation status (3.3%). At the project level when student data were aggregated: for students in grades 4-6 socio-ecomomic status (18.7%), and the relative use of the English language at home (22.9%)

Findings indicated very few statistically significant relationships. The three covariates were not effective, nor was grade level, either as a main effect or as an interaction with reading or mathematics assistance. What were significantly related to test scores were the main effects of reading, and mathematics assistance, which had identical patterns. For reading, those not receiving tutoring had a mean score of 47.00, while those receiving tutoring for remedial purposes were significantly lower (41.48). For mathematics, these means were 47.36 and 43.10, respectively. Thus, those who received tutoring during the 1981-82 school year had lower levels of academic achievement the prior year (i.e., spring 1981) than those who did not receive tutoring.

These findings support the original conclusion that achievement test data would not be appropriate for measuring project effectiveness. The data did show, however, that Indian students, as a group, score below the national norm on reading and mathematics achievement tests, and suggest that the Part A projects' tutoring components are focused on those students in need of assistance. The remainder of this chapter presents ratings and other data from project staffs, tutors, teachers, parents, and the students themselves on the impact of project tutoring activities.

Evidence of Academic Achievement Cited by Project Staff

The design of the Part A evaluation recognized that multiple measures of academic performance were desirable because all types of measures have both strengths and weaknesses. Thus, in addition to test scores, structured surveys and interviews, data collectors were instructed to seek information during the spring site visits from project directors and other staff concerning specific evidence(s) of the impact of their Part A projects on academic achievement. Such evidence could come from project evaluation reports, data used in writing the project plan, staff analysis reports, district reports and evaluations, or other sources.

Where project directors made reference to the existence of such evidence, the data collectors were told to obtain copies and provide these to Development Associates for analysis. Where the evidence cited by the project directors was anecdotal in nature, the data collectors were instructed to use their judgment in deciding whether to pursue the matter further. They were told, for example, that they might seek documented evidence from school files, such as grades or corroborating opinions from teachers, parents, or students.

In ten projects, the project directors and others contacted in this regard reported that they did not know whether or not there had been any impact. In an additional 17 projects, those interviewed stated explicitly that their projects were having no impact on academic achievement. In six projects, no information on this topic was obtained. Thus, for these 33 (29%) projects, no further information was obtaned. At the remaining 82 (71%) projects, those interviewed indicated that their projects were having some form of positive impact on academic achievement.[7]

A wide variety of evidence was cited by project staff in support of their beliefs that there had been a positive impact on academic achievement of Indian students. Table 6-10 summarizes the types of evidence reported and the number of projects reporting each type. It should be noted that some projects cited more than one type of evidence for their claims.

Staff members at 42 projects cited the results of standardized achievement tests as evidence that their projects were having an impact. Staff at 32 of these projects supplied documentation in the form of actual test score data to

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[7] Ninety of the 115 Part A projects visited indicated that they had formal tutorial/academic assistance components, and 75 are included among the 82 projects discussed above. These 75 projects ascribed their academically-related achievements to the tutorial/academic component of their projects; the remaining seven projects explicitly or implicitly ascribed their positive impacts on academic achievement to the activities of their cultural or counseling components. Those contacted at the other 15 of the 90 projects having a formal tutorial/academic achievement assistance component reported either that they were unsure if any impact had occurred (e.g., because of lack of test score data) or that no impact had yet occurred in this area.

TABLE 6-10

TYPES OF EVIDENCE CITED IN SUPPORT OF PROJECT IMPACT ON ACADEMIC ACHIEVEMENT

Type of Evidence	Number of Projects
1. Standardized test score results:	
• Documentation provided to data collectors	32
• Documentation not provided	10
2. Improved classroom grades:	
• Documentation provided to data collectors	4
• Documentation not provided	
a. Isolated anecdotes	9
b. Group statistics	5
c. Group anecdotes	3
3. Awards, honors, scholarships (all undocumented):	
a. State and local awards	6
b. Scholarships	3
c. Honor Roll	3
d. National Honor Society	1
e. Student Council	1
4. Classroom assignment (all undocumented):	
a. Transfers to gifted/talented class	2
b. Decreased numbers of placements in remedial class	2
5. Decreased dropout (all undocumented)	9
6. Improved discipline (all undocumented)	3
7. Generic positive statements	20
8. No impact	17
9. Don't know	10
10. No response	6

substantiate their claims of project impact. Staff at the remaining ten projects cited test score results from project evaluations or other project/school documents which were not available to the data collectors.

Staffs at 21 projects cited improved student grades as evidence of project impact on academic achievement. In only four of these cases, however, was documentation provided. Of these four, staffs at three projects cited the information collected by the pre/post-tutorial instruments used in this study. Staff at the other project provided the pre- and post-tutorial grade point averages for nine students, showing an average increase of 0.9 grade point after six months of tutoring. For each of the four projects, the evidence provided supported claims of project impact. Staffs at the remaining 17 projects provided undocumented citations of improved grades, but differed widely in the form in which they reported their evidence. Their statements may be divided roughly into two categories: citations of group statistics indicating improved grades (8 projects), and anecdotes indicating improved grades of particular individuals (9). Typical of the first group were statements such as:

> "...Of the 117 students tutored, 88 percent were at grade level, and there was, overall, a 1.3 grade level improvement in subjects tutored."
>
> "...75-85 percent improvement in the grades of the 150 students served by tutoring."

Individual anecdotes generally consisted of reports by parents or teachers such as:

> "...one 7th grade student who had Fs last year, this year has As and Bs as a result of tutoring."
>
> "One parent reported her child's grade of D in math going to B within the same semester because of tutoring."
>
> "One student was a C student before tutoring; afterward an 'A' student."

In addition, increases in the number of Indian students receiving awards, scholarships, honors, and/or other types of recognition for academic achievement were cited as evidence of project impact on academic achievement by staffs at 14 of the above projects. But, again, no documentation supporting these statements were provided to the data collectors.

Changes in the classroom assignments of Indian students was cited by staffs at four projects. Increases in the numbers of Indian students assigned to gifted and talented classrooms had occurred as a result of the project, according to respondents in two projects. Interviewees in two other projects reported that fewer students had been assigned to remedial classrooms since their Part A projects began. In addition, staffs at nine projects reported a lowered dropout rate among Indian students as evidence of the impact of their projects on academic achievement, and staffs at three projects cited improved classroom discipline on the part of Indian students as evidence of impact in the area of achievement.

In summary, during discussions with field data collectors, project staff members at 71 percent of the Part A projects indicated that they thought that the projects had had a positive impact on the academic achievement of Indian students, and some plausible evidence to support these beliefs was documented in approximately half of the cases.

Tutor Ratings of Academic Impact

An important source of information concerning the impact of tutorial programs was the individuals who provided tutoring to students. As described earlier, tutors were asked to complete three types of data collection instruments: (1) a Tutor Characteristics Questionnaire, in which the tutors described themselves and their experiences; (2) a Characteristics of Tutored Students Questionnaire, which was completed for each student either in the fall of 1981 or when tutoring began; and (3) a Post-Tutorial/Special Program Follow-up form, which was completed for each student when tutoring ended or when the spring data collection occurred.

There were a number of items on the second and third instruments which served as pre- and post-tutoring year measures of academic impact. Tutors were asked to rate each of their students at both points in the academic subject areas in which they were being tutored. Ratings were made in reading, mathematics, writing, and social studies. Tutor ratings were made on single item five-point Likert-type scales ranging from low to superior; the scale point of "1" represented a rating of low.

Tutors were also asked to provide pre- and post-tutoring ratings for each student on the variables of self-confidence, interest in school work, classroom attendance, and conduct in school. These variables were rated on a similar scale as described above. Selected findings concerning self-confidence and interest in school work are also presented in this section.

The major impact variables (ratings on reading and mathematics) were analyzed using a very broad range of project, tutor, and student variables. Simple cross-tabulations and breakdowns were first performed, and then academic ratings were analyzed through multiple regression techniques. The purpose of these analyses was to determine which factors were significantly related to tutor ratings of students' academic improvement.

1. Procedures

Data from the Tutor Characteristics and Pre-Post Tutoring Improvement forms plus selected project level cross-break variables (such as, geographic location of the project, ratio of Indians to total students, and geocultural region) were placed into a common analysis file. This occurred after each of the separate files had been examined to gain insights into the nature of the tutoring program and characteristics of tutors. There were 3,528 students for whom either a pre or post form was available. In terms of grade levels, 24 percent were in grade 3 and below, 33 percent in grades 4-6, 35 percent in grades 7-9, and 7 percent in grades 10-12. However, since not all students were receiving tutoring in the same subject area, and because pre- and post-ratings were unavailable on all students, the impact analyses presented here are based on considerably fewer cases. That is, analyses of mathematics improvement are based on 1,756 students, and those of reading progress are based on 1,495 students.

Reviewing the patterns of data, it appears that no major biases or shifts in the findings were introduced by using only those students having pre- and post-tutor ratings in reading and/or mathematics for analysis purposes. Those being tutored in any one of four other areas amounted to fewer than one-quarter (23%) of the students, whereas over three-fifths of the students were being tutored in reading and/or math (61% and 70%, respectively). The pre-distributions of tutor ratings of all students in reading (N=1863) and math (N=2141) were also examined and compared with the pre-distributions of tutor ratings for those students having both pre- and post-tutor ratings (N=1495 and 1756, respectively). For both subject areas, the distributions of pre-ratings were extremely similar, differing by no more than two percentage points, and then only in one of the five rating scale positions. The proportion of students in various grade ranges was also quite similar. Thus, no apparent biases were introduced by using those students who had both sets of tutor ratings.

However, the possibility does, of course, remain that the ratings made by tutors are not fully valid. The tutors were paid by the Part A projects and were effectively being asked to rate the result of their own work. Thus, some self-serving response bias may have been introduced, although it would have required tutors to coordinate their fall and spring ratings on individual students. Also, it is possible that the single item rating scale formats used were too "global" to indicate the full extent of student improvement over the time they received tutoring.

The major analytic approaches used in conjunction with these data were frequencies, breakdowns, and multiple linear regressions. A series of regressions was performed, first with a composite dependent variable which combined the post-test scores of all rated subject areas, and then separate analyses using post-test mathematics and reading scores as dependent variables. These latter findings proved more productive to present here. In all regression analyses, the corresponding academic pre-test measure was "forced" into the regression equation first, to act as a type of covariate and control for initial levels of academic performance.[8]

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[8] Throughout the regression analyses, pairwise rather than listwise deletion of cases was used in order to maximize the number of cases and statistical power of the result. Using this approach did not appreciably alter the pattern of intercorrelations among variables.

2. Fall and Spring Ratings

Almost three-quarters (74%) of students were rated by tutors as having shown specific academic improvement in one or more areas attributable to tutoring. The basis of these tutor assessments included informal observation of daily work (52%), improved grades (25%), classroom tests (24%), achievement tests (13%), curriculum-based pre- and post-tests (7%), and other pre/post-tests (10%).

Examination of the two distributions of ratings (pre and post) made by the tutors indicated some overall improvement. The mean rating for reading increased from 2.0 to 2.5, and the mean rating for math increased from 2.1 from 2.7. (The standard deviations for each set of ratings were the same, 0.8.) The patterns of pre- and post-rating scale shifts in reading and math contained in Tables 6-11 and 6-12 confirm this improvement. Just over one-half (51%) of the students tutored in reading demonstrated academic improvement, while slightly fewer than half (46%) remained at the same relative level of performance. Only a small percentage (3%) declined in relative academic level. The ratings for those tutored in math were quite similar; 48 percent improved, 48 percent performed at the same relative level, and 4 percent declined in performance.

Furthermore, most of the gains registered were made by those at the lowest initial levels of performance. Collapsed over subject areas, almost three-quarters (71%) of those initially rated as low in performance improved, while only half (53%) of those rated as below average demonstrated a gain in

TABLE 6-11

PRE- AND POST-TUTOR RATINGS OF STUDENTS' RELATIVE ACADEMIC LEVELS IN READING (N=1495)

	Post**						
Pre**	Low	Below Average	Average	Above Average	Superior	Row Totals* N	Row Totals* %
Low***	28%	50%	20%	0.5%	0.2%	406	27
Below average	2	45	50	3	0	737	49
Average	1	6	70	21	2	311	20
Above average	0	7	20	70	3	30	2
Superior	0	0	45	9	46	11	1
Column Totals N	129	559	682	113	12	1495	
%	9%	37	46	8	1	100	

*All cell percentages are based on the number of students having the corresponding "Pre" rating in that row.

**"Pre" represents the beginning of tutoring for the school year, "Post" when tutoring ended or when the spring data collection visit occurred.

***For the purpose of computing means, Low = 1 and Superior = 5.

TABLE 6-12

PRE- AND POST-TUTOR RATINGS OF STUDENTS' RELATIVE ACADEMIC LEVELS IN MATH (N=1756)

		Post**				Row Totals*	
Pre**	Low	Below Average	Average	Above Average	Superior	N	%
Low***	27%	48%	23%	2%	0.5%	373	21
Below average	3	43	48	6	0.4	857	49
Average	1	6	72	20	1	447	26
Above average	0	1	28	65	6	71	4
Superior	0	0	25	0	75	8	1
Column Totals N	128	577	837	193	21	1756	
%	7%	33	48	11	1	100	

*All cell percentages are based on the number of students having the corresponding "Pre" rating in that row.

**"Pre" represents the beginning of tutoring for the school year, "Post" when tutoring ended or when the spring data collection visit occurred.

***For the purpose of computing means, Low = 1 and Superior = 5.

performance. These differential improvements are far greater than could be expected by a regression to the mean effect.[9]

In general, it appears that some extent of improvement has occurred in reading and math, and across all subject areas in which students were tutored. The extent of improvement was greater than the extent of decline. The pre-post correlations also bear this out to some extent. However, the magnitude of improvement is less than what might be immediately evident, since certain statistical artifacts are present.

Similarly, the tutors also noted improvement in the students' interest in school work and self-confidence, as presented in Tables 6-13 and 6-14, respectively. However, here too some regression effects are evident, especially in the "average" category on the self-confidence pre-measure, some proportion of these students being rated as below average on the post-measure.

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[9] The apparent improvement in ratings is not entirely associated with program effectiveness. Part of the improvement is due to "regression toward the mean" statistical artifacts (i.e., low scores tending to improve and high scores tending to decline, as a purely statistical phenomenon). This occurs because of the imperfect bivariate correlations of pre- with post-ratings which exist for reading (r= .60), math (r= .57) and the composite index formed across all tutored subject areas (r= .52). As a result of these "test-retest" correlations being fairly high, yet substantially less than 1.00, such patterns as the following occur, found in Tables 6-11, and a similar one in Table 6-12:

- 27 percent of those above average on the pre-reading measure declined to either below average or low (or at least two rating scale points away); and
- 45 percent of the 11 students rated as superior on the reading measure declined to average.

TABLE 6-13

PRE- AND POST-RATINGS OF TUTORED STUDENTS' INTEREST IN SCHOOL WORK AS RATED BY THEIR TUTORS

Rating*	Pre (N=1863)	Post (N=1814)
Low	27%	10%
Below average	47	37
Average	22	45
Above average	3	7
High	1	1
Mean Rating	2.0	2.5

*1 = Low and 5 = Strong.

TABLE 6-14

PRE- AND POST-RATINGS OF TUTORED STUDENTS' SELF-CONFIDENCE AS RATED BY THEIR TUTORS

Rating*	Pre (N=3246)	Post (N=3071)
Weak	7%	3%
Below average	30	22
Average	51	59
Above Average	10	13
Strong	3	3
Mean Rating	2.7	2.9

*1 = Weak and 5 = Strong.

3. Factors Associated with Changes in Ratings

In order to investigate the relationships between certain project, tutor, and student characteristics with changes in tutor ratings of reading and mathematics, further analyses of those ratings were performed. Raw difference scores (i.e., post-pre) were calculated between fall and spring ratings of performance in reading and mathematics, and the difference scores[10] were used as dependent variables in analyses of variance. Because the initial scores ranged from 1 to 5, the difference scores could theoretically range from -4 to +4, with positive numbers meaning improvement. The actual distributions of difference scores are presented in Table 6-15.

Reading difference scores varied based on the location of the project, whether the tutor was Indian, and the total number of tutoring hours in the year (weeks x hours per week). Students in urban projects had lower reading difference scores (mean = +.37) than students in projects on or near reservations (+.58), in other rural areas (+.56), or in metropolitan areas (+.55) (F=3.48, df = 3/1491, p .05).

Students with Indian tutors had higher reading difference scores (mean = +.58) than students with non-Indian tutors (+.42) (F=11.89, df = 1/1310, p .001). Also, as the total number of tutoring hours per year increased, the reading difference score also tended to increase (see Table 16).

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[10] As Linn (1979) quite correctly put it, (p.86): "there is . . . a fairly general awareness that there are problems associated with the measurement of change." Indeed, there have been articles and entire books written about the topic for the last 20 years. The main purpose here for using this technique was to assess the overall direction of reading and/or math scores over the school year and to determine if overall shifts in scores were related to program participation. Thus, another of Linn's comments is also relevant in referring to one of the often-cited weaknesses of difference scores, low reliabilities. (1979, p. 87)

> Low reliability of a difference score is a serious problem where difference scores are used to make decisions about individuals. But . . . for groups, the reliability problem is a much less serious concern. Thus, this feature of difference scores, for which they are most frequently maligned, is not a fatal flaw within the context of educational evaluation studies.

See also Kanouse et al. (1980, Appendix A) for an application of difference scores to predicting Indian and other graduating high school students' post secondary experiences.

TABLE 6-15

DISTRIBUTION OF TUTORED STUDENTS (SPRING-FALL RATINGS) DIFFERENCE SCORES IN READING AND MATHEMATICS

Difference Score	Reading (N=1495)	Mathematics (N=1756)
-2	1%	0%
-1	3	4
0	46	48
+1	43	40
+2	7	8
Total	100%	100%

TABLE 6-16

MEAN READING DIFFERENCE SCORES BY TOTAL HOURS OF TUTORING

Number of Hours of Tutoring in Year	N	Mean Reading Difference Score
1-25	343	+.43
26-50	304	+.58
51-99	386	+.55
100 or more	330	+.62

$F=3.63$, $df=4/1490$, $p < .01$

Math difference scores were related to the location of the project and the total number of tutoring hours per year. Students in projects on or near reservations had higher math difference scores (mean = +.61) than students in metropolitan (+.54), urban (+.50), or other rural (+.48) areas ($F=3.36$, $df=3/1753$, p .05). As shown in Table 6-17, students who had had moderate amounts of tutoring had higher math difference scores than students who either had a little or a great deal of tutoring.

TABLE 6-17

MEAN MATH DIFFERENCE SCORES BY TOTAL HOURS OF TUTORING

Number of Hours of Tutoring in Year	N	Mean Reading Difference Score
1-25	403	+.42
26-50	354	+.69
51-99	474	+.53
100 or more	383	+.47

$F=3.56$, $df=4/1752$, $p<.001$.

These differences between groups were statistically significant, but were not strongly related to the reading and math difference scores used as dependent measures. (Eta squared values, representing the percentage of explained variation, ranged from 0.6 percent to 1.5 percent.) Multiple regression approaches were thus employed to determine what factors were related to tutor ratings of improved performance in reading and mathematics. Using this technique allowed relationships to be found more clearly, if any meaningful ones existed, and to determine what subset of these factors was most related to improved performance.

4. Multiple Regression Results

Stepwise multiple linear regressions were performed separately on math and reading post-test scores. The predictor variables used represented a broad range of conceptually meaningful and logically related academic performance variables from: the Characteristics of Tutored Students form (the pre-test), the Post-Tutorial Follow-up form (the post-test), and the Tutor Characteristics questionnaire. Selected project variables were also included, (e.g., location of project, ratio of Indian to total students, and geocultural region). In each regression, the pre-test measure (either math or reading) was "forced" into the equation first, to control for intial rating levels. It therefore acted as a covariate. Since the pattern of results was similar for both math and reading outcomes, only the results for math outcomes are presented since they were based on more cases and thus are statistically more reliable.

In any multiple regression analyses based on sample data, rather than a full population, the possibility exists of change fluctuations resulting in intercorrelations among variables that affect which of these enter the prediction equation and how much variation in the dependent measure each predictor accounts for. Such patterns can occur even though well-chosen and conceptually meaningful predictors have been used. An attempt was, therefore, made to increase the interpretability of the findings by imposing certain stringent criteria on the sheer empirical nature of the computed output.

Three criteria were, thus, used to select variables for inclusion in the prediction equation. These criteria were to: (1) raise the statistical significance of the overall F ratio for each step of adding variables to the prediction equation; (2) only include variables which increase, by at least 1 percent, the the additional explained variation (or change in R^2); and (3) use a beta weight size of at least ± .1. The use of these criteria reduced the number of predictors by more than one-half, yet provided greater assurance of plausible findings.

The summary data reflecting the sequence in which variables entered into the multiple regression equation, and the improvement these predictors made to predicting post-test math performance are presented in Table 6-18. As can be seen, it was possible to predict post-test math performance quite well; the multiple correlation was $R = .70$. However, the pre-test of math performance and a post-measure of interest in school work were the only variables which increased R^2 by more than .05.

TABLE 6-18

MULTIPLE REGRESSION SUMMARY TABLE USING THE POST-TEST MEASURE IN MATHEMATICS AS A DEPENDENT MEASURE (N=1135)

Predictor Variables (in sequence of entry)	Change in R	Beta (Standardized Regression Coefficient)	Simple Correlation (with Post-test Measure)
Pre-test math rating	.329	.439	.574
Post-test rating of interest in school work	.105	.259	.508
Post-test rating of self-confidence	.024	.217	.515
Tutor rating of overall academic improvement	.024	.164	.287
Pre-test measure of interest in school work	.010	-.140	.360

Multiple R=.70, R^2=.49, F=218.47, df=5/1129, $p<.001$.

No tutor or project characteristics entered the prediction equation. The number of hours per week of tutoring and number of weeks of tutoring also did not enter the equation. Apparently for this sample of tutored students, variables other than these were more related to post-measures of math.

It also should be pointed out that the negative sign of the standardized regression coefficient associated with the pre-test measure of "interest in school work" was a statistical artifact, caused by a high correlation with the post-test measure on the same dimension. The fairly high correlation of these two items (r= .673) meant that the item that entered the regression equation first would mask the effects of the other item. A similar situation affected the post-test ratings of interest in school and self-confidence, which were highly correlated with each other (r= .663). In fact, when analyzing post-test reading scores, the post-test measure of "self-confidence" entered the multiple regression prediction equation directly after the pre-test of reading, and thus accounted for 10.9 percent of the variance. However, the post-test measure of interest in school work accounted for only an additional .73 percent of variance.

The failure of measures of intensity of tutoring exposure to enter this set of regression equations was unanticipated, yet by no means impossible.[11] The bivariate correlations between post-test math ratings, hours per week of tutoring and/or number of weeks in the program were r= .152 and r= .090, respectively. These results therefore show that although the amount of tutoring was slightly related to outcome ratings, other factors were considerably more important in explaining those ratings for the sample of tutored Indian students.

5. Summary

Individuals who tutored students reported that approximately three-quarters of those tutored had improved their academic performance as a result of the tutoring. Based on tutors' fall and spring ratings of student performance in reading and mathematics, half of the students rated in each subject were given higher ratings in the spring than in the fall, and almost all of the remaining students were given the same rating. The tutoring improvement found here appears to be greater than can be fully accounted for by statistical artifacts, and this indicates that tutoring was effective to some extent.

Although the tutor ratings were statistically related to variables such as geographic location of project and total number of hours spent in tutoring, these variables failed to account for much of the variation in tutor ratings, when other variables were also considered. When ratings of math and reading performance were analyzed by multiple regression techniques, the primary predictors of those ratings were found to be tutor ratings of student interest in school work and tutor ratings of student self-confidence. It may be that tutored students improve more in their academic subjects when their interest (or attitude) toward school and their self-confidence also increases.[12]

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[11] The colloquial term "bouncing beta" has been used in the statistical literature to indicate a variable's tendency to be a strong predictor in one set of data, and to be a substantially poorer predictor variable in another sample drawn from the same population.

Ratings of Impact By Parents, Teachers, and Staffs

Ratings of the academic gains of Indian students were also collected from teachers, project staffs, and parents. The respondents assessed how much the projects had helped to improve student performance in reading, language arts, and mathematics, and how much the project had helped to improve student grades. The same scale of 1 (No impact), 2 (A little impact), 3 (Some impact), and 4 (A great deal of impact) was used in all items. The scores on reading and language arts were combined to produce an overall language arts score. The responses of teachers, parents, and staffs were averaged within each project to provide a mean rating per project for each of the three respondents groups.

The impact measures were analyzed by location of project and by amount of effort spent on basic skills (instruction in language arts and mathematics). Those projects formally spending effort to improve performance in basic skills were compared with projects reporting no hours of effort on basic skills. Projects were also categorized by the ratings of the level of impact that the project had on student grades. The projects in each category of impact on grades were compared on the amount of effort spent on basic skills and other academic instruction.

1. Analysis of Academic Impact by Location

The ratings of teachers, staffs, and parents with respect to academic gains first were analyzed by location of school district (on or near reservation, other rural, urban, and metropolitan).

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[12] This, however, conflicts with Table 9-11 which shows a low correlation. Thus, this conclusion must be viewed as tenative.

Project impact on performance of Indian students in mathematics was reported by teachers of Indian students and by staff members of the Part A projects. Overall, the mean rating given by classroom teachers in the 101 projects reporting on mathematics performance was 2.8 on the scale of 1 to 4. The mean rating of project staffs was also 2.8. The ratings of teachers and staffs varied somewhat by location type. Figure 6-1 illustrates these differences. In urban projects, both the teachers and the staffs rated the impact on mathematics lower than did respondents in other types of location. The teachers and staffs in other rural locations gave the highest mean rating, 3.0. The difference between urban and other rural projects was statistically significant at the $p < .05$ level.

Both teachers and staffs reported relatively high levels of impact of the projects on language arts (including reading) performance of Indian students. The mean rating given by teachers was 2.9, while the mean rating by staffs was 3.0. The mean ratings of the two groups tended to be close in all locations, as shown in Figure 6-2. The mean rating given by urban respondents was slightly lower than the means for respondents in other locations, although there were no statistically significant differences among the means.

The project impact with respect to improving student grades was also reported by the teachers and the parents. The mean ratings of teachers and parents were both 2.8. Mean ratings by project location appears in Table 6-19.

TABLE 6-19

RATINGS OF IMPACT ON GRADES BY LOCATION OF PROJECT AS
REPORTED BY TEACHERS AND PARENTS*
(N=101 projects)

Location	Teachers	Parents
On or near reservation	2.84	2.96
Other rural	3.01	2.79
Urban	2.57	2.81
Metropolitan	2.58	2.52

F (Location) = 4.20, df = 3/194, $p < .01$
*Scale: 1= No impact, 2= A little impact, 3=Some impact, 4= A great deal of impact.

FIGURE 6-1

PROJECT IMPACT ON MATH
BY LOCATION TYPE OF PROJECT

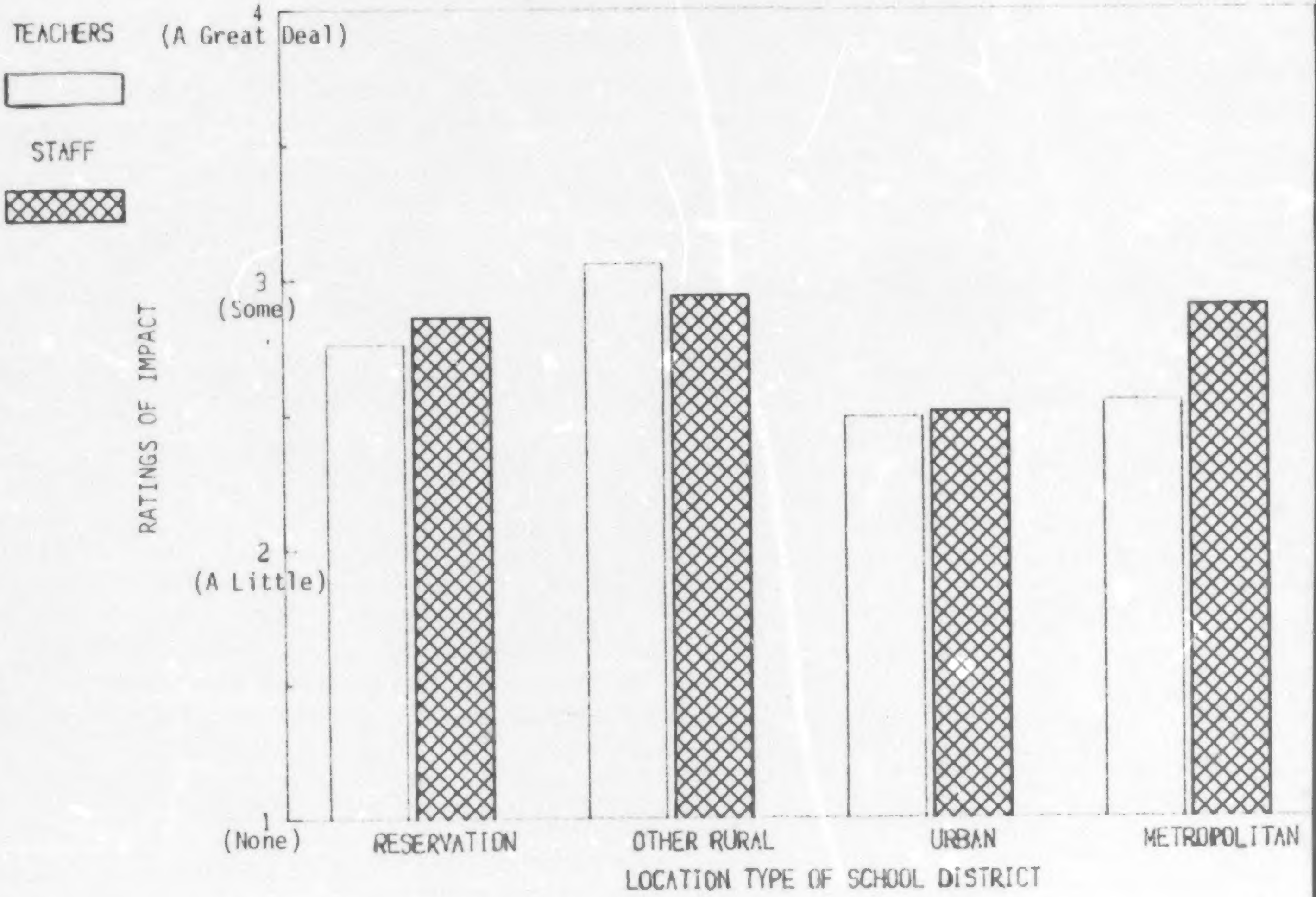
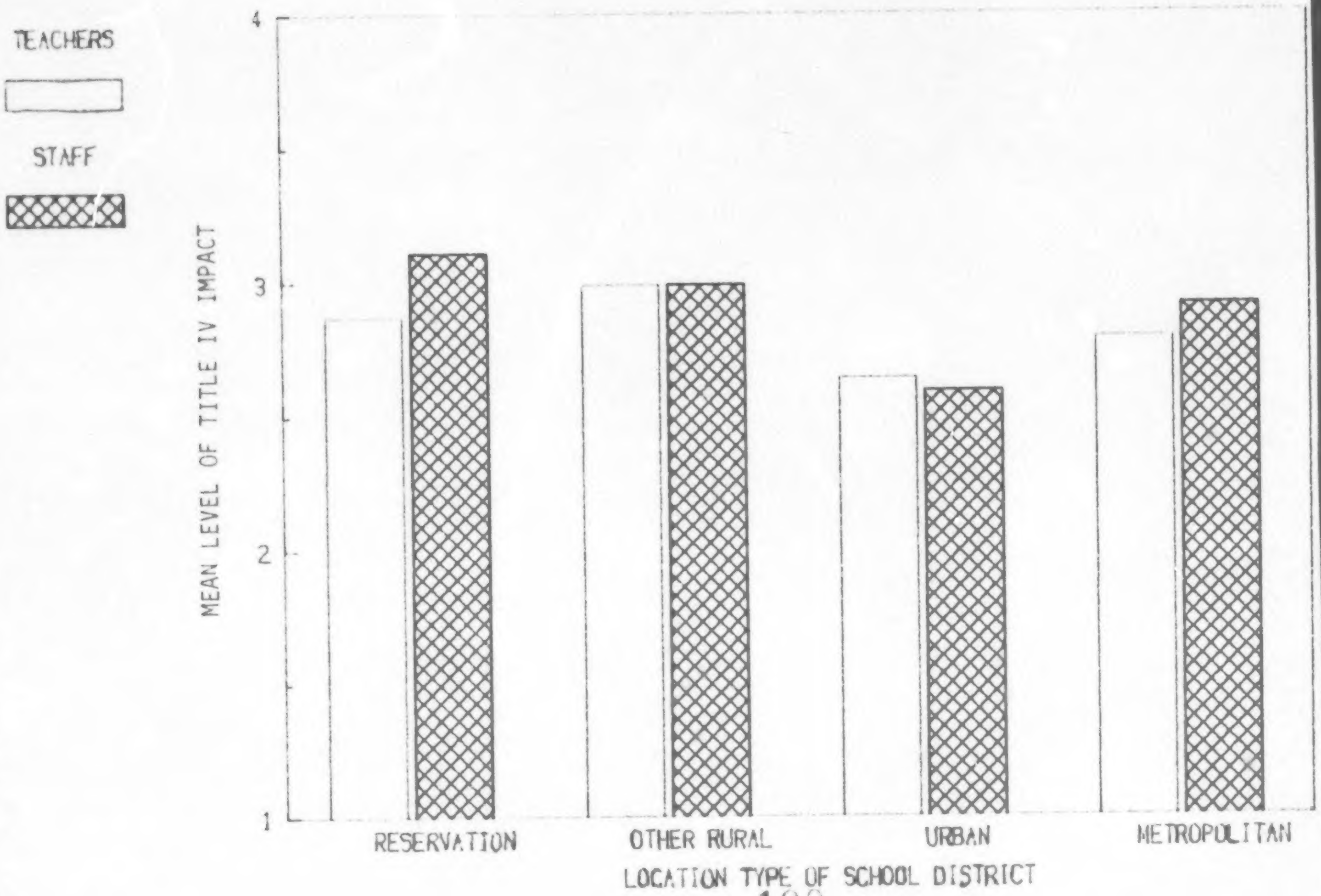


FIGURE 6-2

PROJECT IMPACT ON READING
BY LOCATION TYPE OF PROJECT



The analyses of project impact on grades by location show that projects in metropolitan locations had the lowest ratings, significantly lower than projects on or near reservations or in other rural locations. Projects in urban locations received intermediate ratings, with parents rating them near average, while teachers rated them well below average.

2. Analysis of Impact by Hours of Project Effort on Basic Skills

The projects varied in the number of hours of effort per student per year spent on special instructional activities in basic skills (language arts and mathematics). Table 6-20 shows the distribution of projects by hours of effort on basic skills.

TABLE 6-20

DISTRIBUTION OF PART A PROJECTS BY HOURS OF EFFORT ON BASIC SKILLS
(N=101)

Hours of Effort on Basic Skills	Percentage of Projects
0 hours (reference group)*	26%
1 to 20 hours	2
21 to 40 hours	11
41 to 80 hours	13
81 to 160 hours	29
160 or more hours	20
TOTAL PROJECTS	100

*See text for explanation.

Of the 101 projects from which data were available, 26 percent spent zero hours on special instruction in language arts and mathematics. These projects served as a reference group for comparisons with the 74 percent (n=75) of the projects expending effort on instruction in basic skills. Thus, the relationship between increases in hours of effort on basic skills and the ratings of project impacts by the various respondent groups could be examined.

Ratings from regular classroom teachers and Part A project staffs of project impact on Indian student performance in mathematics in relation to the numbers of hours of effort are shown in Table 6-21.

TABLE 6-21

RATINGS OF PROJECT IMPACT ON MATHEMATICS BY HOURS OF EFFORT IN BASIC SKILLS
AS REPORTED BY CLASSROOM TEACHERS AND PROJECT STAFF
(N=101 projects)

Hours of Effort	Teachers	Staff
0	2.45	1.96
1 - 20	3.21	2.00
21 - 40	2.62	3.36
41 - 80	2.85	3.37
81 - 160	2.90	3.14
161 or more	2.96	3.04

F (Hours of effort) = 8.80, df = 5/190, $p < .001$
*Scale: 1=No impact, 2=A little impact, 3=Some impact, 4=A great deal of impact.

The data indicate that ratings of impact on mathematics in projects expending effort on basic skills instruction were higher than ratings in the reference group (those projects expending no hours of special instruction). The number of hours expended, however, was not related to the ratings of impact on mathematics. It should be noted that the means in the group with 1-20 hours in basic skills instruction were relatively unstable, and therefore do not provide a sound estimate, because that group contained only two responding projects.

The ratings of project impact on language arts (including reading) by hours of effort in basic skills are presented in Table 6-22. Ratings for projects which devoted no hours per student per year to basic skills instruction tended to be lower than for projects which devoted at least some hours to such instruction. There was no clear pattern of relationship between the number of hours of effort devoted to basic skills and the ratings of impact on language arts, however.

TABLE 6-22

RATINGS OF PROJECT IMPACT ON LANGUAGE ARTS BY HOURS OF EFFORT IN BASIC SKILLS AS REPORTED BY TEACHERS AND PROJECT STAFF*

(N=101)

Hours of Effort	Teachers	Staff
0	2.68	2.54
1 - 20	3.25	2.25
21 - 40	2.80	3.43
41 - 80	2.89	3.35
81 - 160	2.97	3.06
161 or more	2.89	2.96

F (hours of effort) = 3.37, df=5/190, $p < .01$
*Scale: 1=No impact, 2=A little impact, 3=Some impact, 4=A great deal of impact.

Teachers and parents rated the impact of projects on improving grades of Indian students (see Table 6-23). The ratings of both teachers and parents were quite similar. Both groups of respondents in projects expending effort on basic skills instruction tended to rate their projects higher than the respondents in the reference group. There was, however, no clear pattern of relationship between the number of hours of effort devoted to basic skills and ratings of impact on grades.

TABLE 6-23

RATINGS OF PROJECT IMPACT ON GRADES BY HOURS OF EFFORT IN BASIC SKILLS AS REPORTED BY TEACHERS AND PARENTS*

(N=101 projects)

Hours of Effort	Teachers	Parents
0	2.53	2.58
1 - 20	3.21	2.91
21 - 40	2.75	2.72
41 - 80	2.91	2.90
81 - 160	2.89	2.84
161 or more	2.92	3.00

F (Hours of effort) = 3.00, df = 5/190, $p < .05$
*Scale: 1=No impact, 2=A little impact, 3=Some impact, 4=A great deal of impact.

3. Level of Impact on Grades by Hours of Project Effort on Basic Skills and Other Academic Components

The projects reported the average number of hours of effort spent per student per year for the components of basic skills (math and language arts) instruction and instruction in other academic areas. The ratings were analyzed to compare the extent of effort expended on these two components by level of reported impact on grades. The projects were categorized by rounding their mean impact ratings on grades by the respondent groups to integers. The average number of hours per component was then calculatd over all 101 projects and plotted on a graph to serve as reference points for the comparisons. The number of projects in each reported level of impact is presented in Table 6-24.

TABLE 6-24

DISTRIBUTION OF PROJECTS BY REPORTED LEVEL OF IMPACT ON GRADES
AS REPORTED BY TEACHERS AND PARENTS
(N=101 projects)

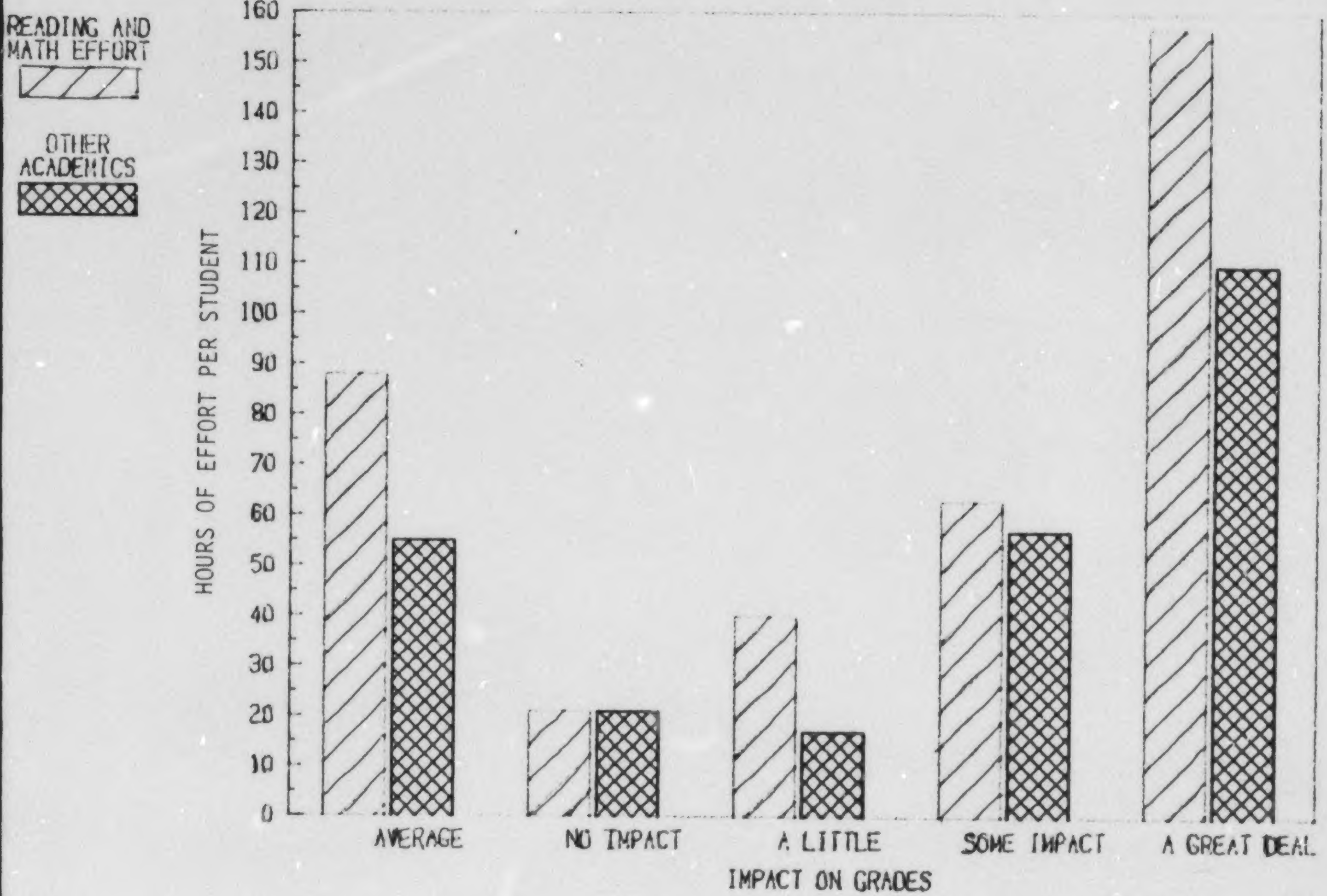
Level of Impact	Teachers	Parents
No impact	4%	4%
A little	16	17
Some	70	71
A great deal	10	8
TOTALS	100	100

As shown in Figure 6-3, the projects rated at no impact on Indian student grades by teachers had a mean of 21 hours of effort expended in basic skills instruction and in instruction in other academic areas. Projects rated by the teachers as having a little impact had a higher number of hours of effort in basic skills than projects rated at no impact, but they had fewer hours of instruction in other academic areas. Projects rated at some impact and a great deal of impact had increasingly greater numbers of hours of effort expended in both basic skills instruction and instruction in other areas. The correlations between mean teacher ratings of impact on grades and hours of effort on basic skills and other academic areas were .23 ($p < .05$) and .12, respectively.

The projects which were rated as having no impact on Indian student grades by parents had a mean of 23 hours of effort in basic skills instruction and a

FIGURE 6-3

TEACHERS' GENERAL RATINGS
BY HOURS OF PROJECT EFFORT



mean of zero hours for instruction in other academic areas (see Figure 6-4). The parent ratings tended to increase as the number of hours of instruction in basic skills and other academic areas increased. However, the projects rated by parents at a great deal of impact on grades had fewer hours of instruction in other academic areas than the projects rated at some impact. The correlations between mean parent ratings of impact on grades and hours of effort on basic skills and other academic areas were both .16.

In summary, the overall ratings of Part A project impact on academic gains as reported by teachers, staffs, and parents were relatively high for all measures. The distribution of ratings for the 101 projects showed that most projects were rated as having some impact on grades, mathematics, and language arts skills. The impact measures varied somewhat by location of project. In general, urban projects were rated lower than those in other locations on impact on improving student performance in mathematics and language arts.

The projects expending effort to improve math and language arts were rated higher than projects which expended no hours of effort for these purposes. The number of hours expended, however, was not consistently related to ratings of project impact on mathematics, and language arts. The number of hours spent on instruction in math and language arts and other academic areas were somewhat related to ratings of impact on grades.

Ratings by Students of the Amount Learned from Part A Tutors

The study also collected data from Indian students in grades 7-12 on their ratings of the extent to which the project in their school districts had contributed to their learning in (1) mathematics and (2) reading or English language arts. Data were gathered only from students who indicated they had received tutoring in math, reading, or some other subject through their project.[13] The students were asked to rate separately how much they had

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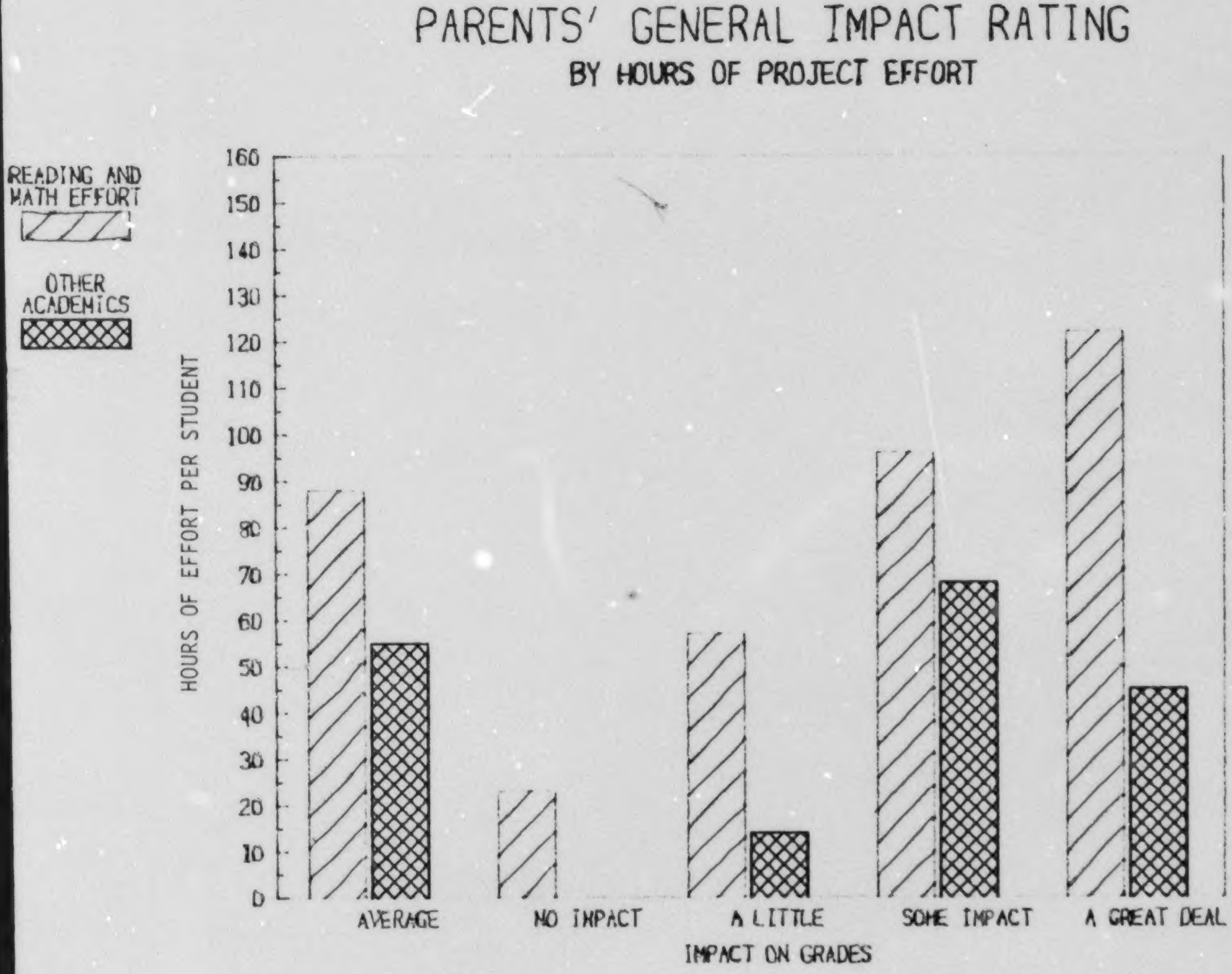
[13] In comparison to all responding students in grades 7-12, the students who rated their Part A tutors in reading and math were more likely to be from projects on or near reservations (59% vs. 50%), were more likely to be male (51% vs. 47%), were more likely to be in grades 7 or 8 (60% vs. 43%), and were more likely to describe themselves as average or below average in school performance (71% vs. 67%).

FIGURE 6-4


PARENTS' GENERAL IMPACT RATING
BY HOURS OF PROJECT EFFORT
READING AND MATH EFFORT
OTHER ACADEMICS
HOURS OF EFFORT PER STUDENT
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
AVERAGE
NO IMPACT
A LITTLE
SOME IMPACT
A GREAT DEAL
IMPACT ON GRADES

learned from the project teacher or tutor who taught each of the two subjects: mathematics and reading/English language arts. The students responded on a five-point scale, from Nothing at all to Very much. The students could also indicate that they had not had a Part A project tutor or teacher in that subject during the year.

The data collected from the secondary students provided a means of assessing the impact of Part A academic instruction in reading and math from the viewpoint of the students receiving the instruction. The student ratings were analyzed by location of school district and hours of project effort on reading and math. They were also compared with the impact ratings of teachers and staff on gains in reading and math in the same school district. Thus, the impact of Part A on academic gains could be considered from the distinct viewpoints of students, teachers, and staffs.

The students were grouped by the level of their ratings for additional analyses. For the various levels of the student ratings, the average numbers of hours of effort to improve reading and math performance and performance in other academic areas were compared. Also, the extent to which the students attributed learning to other sources (reading and math teachers, other classroom teachers, other tutors) was compared with the amount of learning they attributed to Part A project teachers or tutors.

1. Extent of Learning in Math and Reading Attributed by Students to Part A

The students rated the extent to which Part A contributed to what they had learned during the year in math and in reading. Of the students who responded, 954 rated the amount learned in math and 1,084 rated the amount learned in reading. Table 6-25 illustrates the percentage of students in each subject area who rated the amount learned from their Part A project at each level, from 0 = Nothing to 4 = Very much. Overall, the students rated the amount learned from their projects in both math and reading relatively high.

TABLE 6-25

STUDENT RATINGS OF THE AMOUNT LEARNED FROM PROJECTS IN MATH AND READING

Rating	Math (N=954)	Reading (N=1084)
0 (Learned nothing at all)	9%	6%
1	9	11
2	24	24
3	29	32
4 (Learned very much)	29	27
Total	100%	100%

2. Student Ratings by Location of School District

The student ratings on math and reading varied by the location of the school district (see Table 6-26). The highest ratings were given by students in rural, non-reservation schools, who rated the amount learned in both math and reading equally high. The students in the urban schools rated the impact on reading considerably lower than did students at other locations.

TABLE 6-26

MEAN STUDENT RATINGS OF THE AMOUNT LEARNED IN MATH AND READING BY GEOGRAPHIC LOCATION***

Location	Math* (N=954)	Reading** (N=1084)
On or near reservation	2.49	2.59
Other rural	2.86	2.83
Urban	2.44	2.30
Metropolitan	2.66	2.61

*F = 4.70, df = 3/950, $p < .01$
**F = 4.05, df = 3/1080, $p < .01$
***Scale: 0 = Nothing at all, 4 = Very much

3. Student Ratings Compared with Teacher and Staff Ratings

As reported earlier, the teachers and Part A project staffs at the schools were asked to rate the impact of the Part A projects on academic gains of Indian students in reading and math during the school year. These ratings were reported on a scale of 1 to 4, with 1 representing No impact and 4 representing A great deal of impact. The scale used by the teachers and staffs differed from the scale used by the students by the wording used in the rating scales (e.g., "No impact" vs. "Nothing at all"), and by the absence of a central score position for the teacher and staff scale. A comparison of the ratings of the teachers, staffs, and students is presented in Figure 6-5 for project impact on math and in Figure 6-6 for project impact on reading.

Overall, the mean teacher rating of project impact on math for these analyses was 3.1 on the scale of 1 to 4. The mean staff rating was 3.2. These means are slightly different from those presented in the previous section because they represent individual rather than project means. Thus, for those students who rated the impact of the project on their math learning at 0 (Nothing), ratings of the teachers declined slightly, while the ratings of the staffs remained the same. As the level of the student reports of impact increased, the level of the teacher reports of impact also increased at a gradual rate. The level of the staff report of impact was fairly consistent for all levels of student-reported impact. For project impact on math, the student and teacher reports tended to agree to a greater extent than did student and staff reports. Therefore, it appears that the teacher ratings were more sensitive to the students' own view than were staff ratings, which might be expected.

Overall, the teacher ratings of project impact on reading averaged 2.9 on the scale of 1 to 4. The staff ratings averaged 3.1 on the same scale. For students who rated the impact of the projects on their learning in reading at 0 (Nothing), the mean ratings of both teachers and staff in the projects of those students were slightly lower than their respective average ratings. As the level of the student report of impact increased from 1 to 4, teacher ratings remained relatively stable, while staff ratings increased slightly. Thus, in reading, both teacher and staff ratings were sensitive to the students' own view.

FIGURE 6-5

STUDENTS' RATING FOR MATH BY
TEACHER & STAFF REPORTED IMPACT

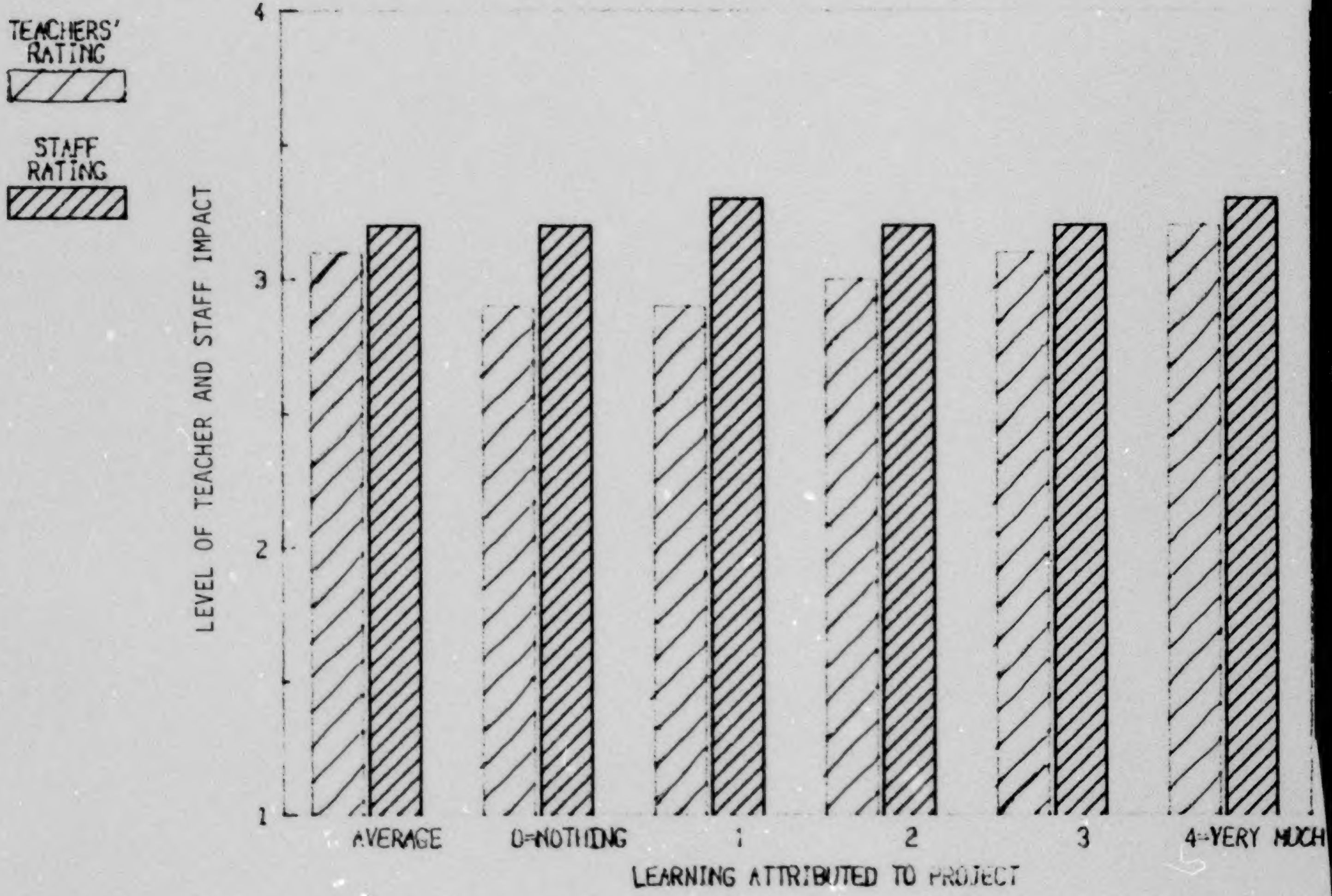
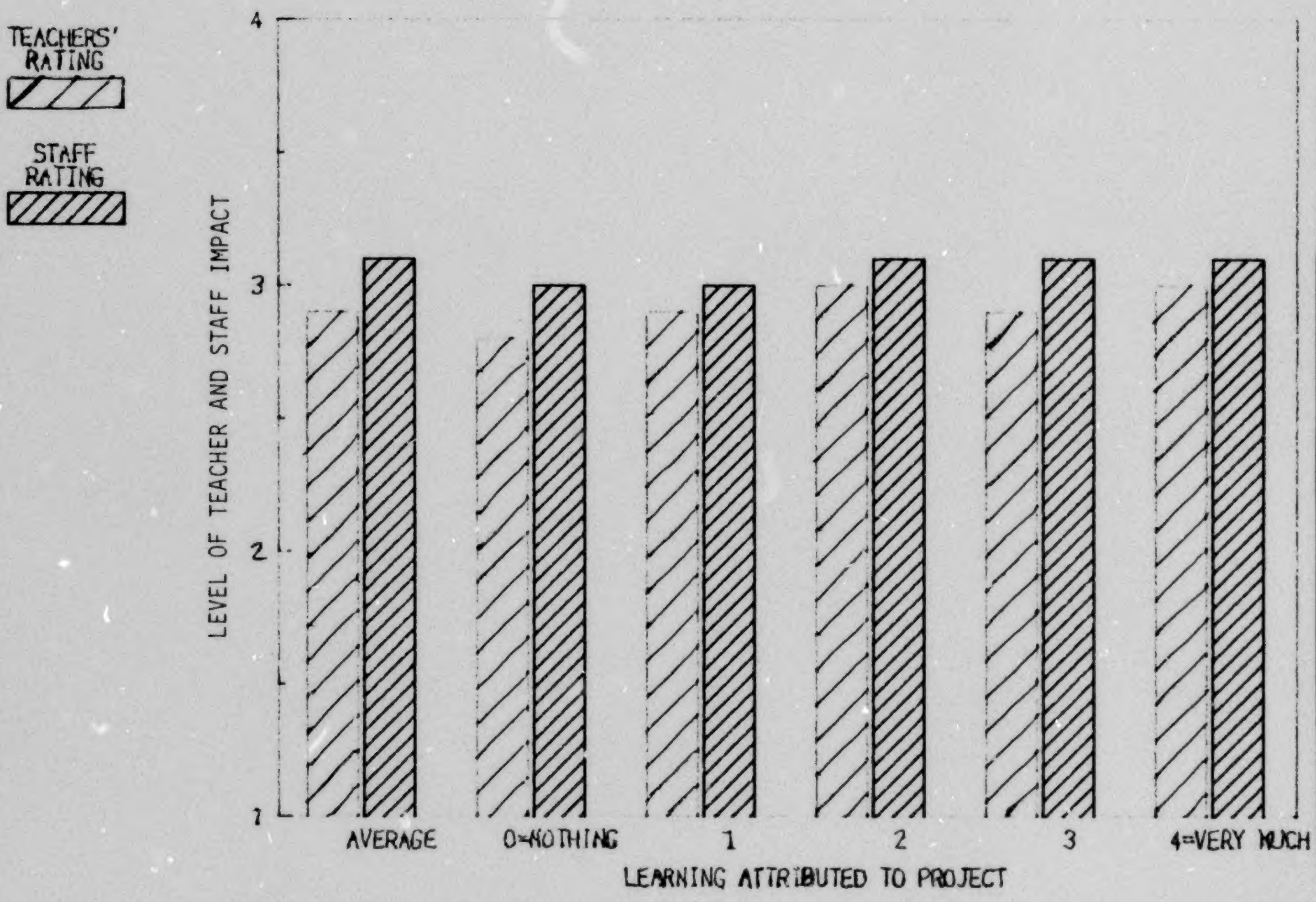


FIGURE 6-6

STUDENTS' RATING OF READING BY
TEACHER & STAFF REPORTED IMPACT



The comparisons of the ratings of teachers, staffs, and students showed a relatively weak positive relationship between the ratings of teachers and staff and those of the students in the same projects. The absence of strong relationships may have been due to the fact that students were rating their personal experiences, while teachers and staff members were rating project-wide effects.

4. Hours of Project Effort by Student Reports of Amount Learned

The projects expended various levels of effort in reading and math instruction and in instruction in other academic areas. The extent of effort in these two areas was compared across five levels of amount learned by the students for math learning (Figure 6-7) and for reading (Figure 6-8). The average number of hours of effort per student per year for each area was calculated and plotted on the graph as a reference point.

The students reporting on the impact of the project on their math learning were in projects that, on the average, had spent 114 hours per student per year on reading and math and 76 hours on other academic areas. As the impact ratings by these students increased, the number of hours of effort in reading and math tended to increase. The number of hours of effort in other academic areas tended to increase, to its highest at the student rating of 2, the central score, it then declined as student ratings went higher.

The students reporting on the impact of the project on their learning in reading were in projects that had spent an average of 112 hours on reading and math efforts and an average of 103 hours on other academic areas. For these students, increases in their ratings of the amount learned in reading reflected increased hours of effort in other academic areas more than project effort in reading and math.

5. Comparison of Learning Attributed to the Part A Project with Learning Attributed to Other Sources

The students were also asked to rate the extent of their learning in math and reading contributed by sources other than Part A teachers and tutors. The

FIGURE 6-7

STUDENTS' REPORT OF IMPACT ON MATH BY HOURS OF EFFORT

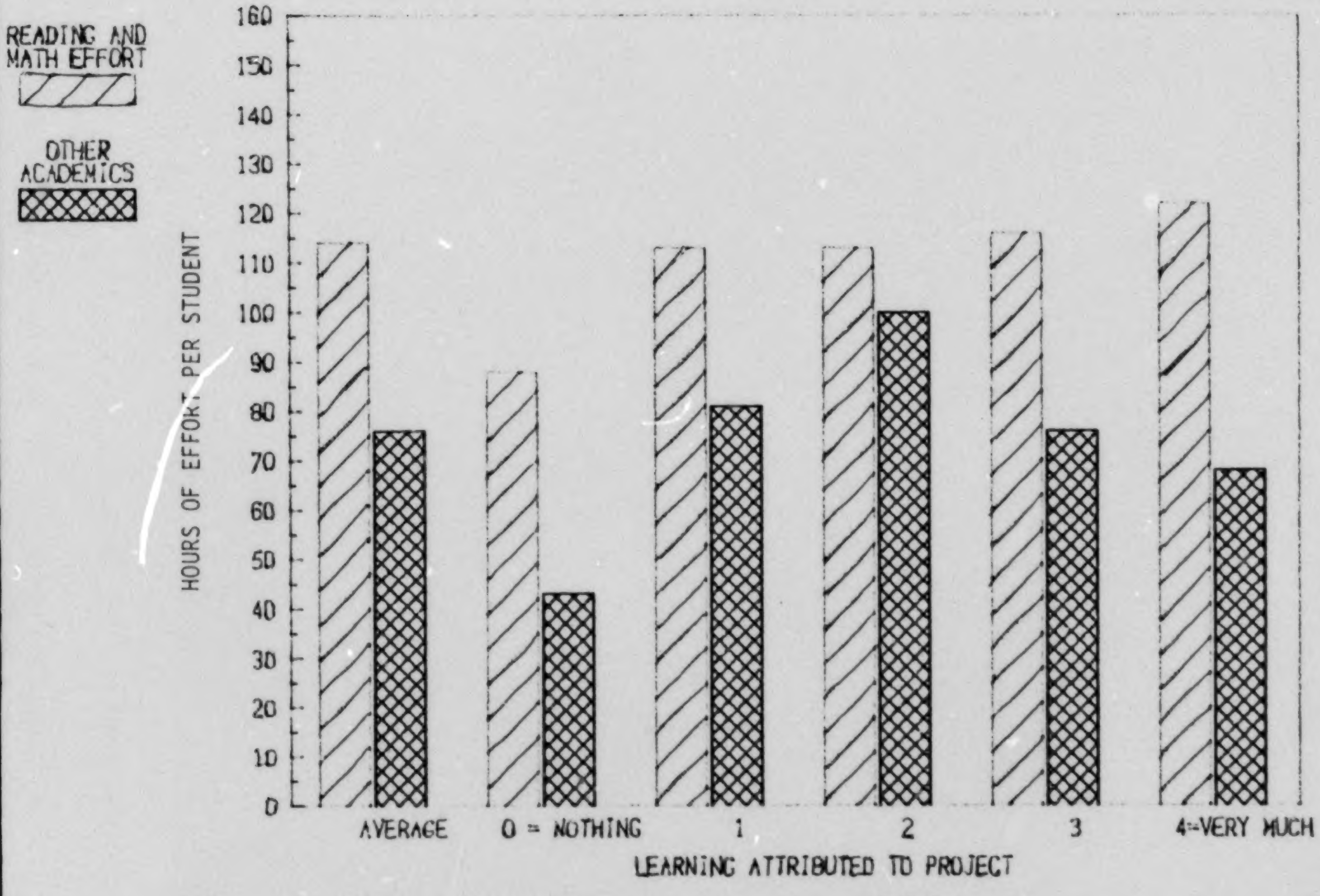
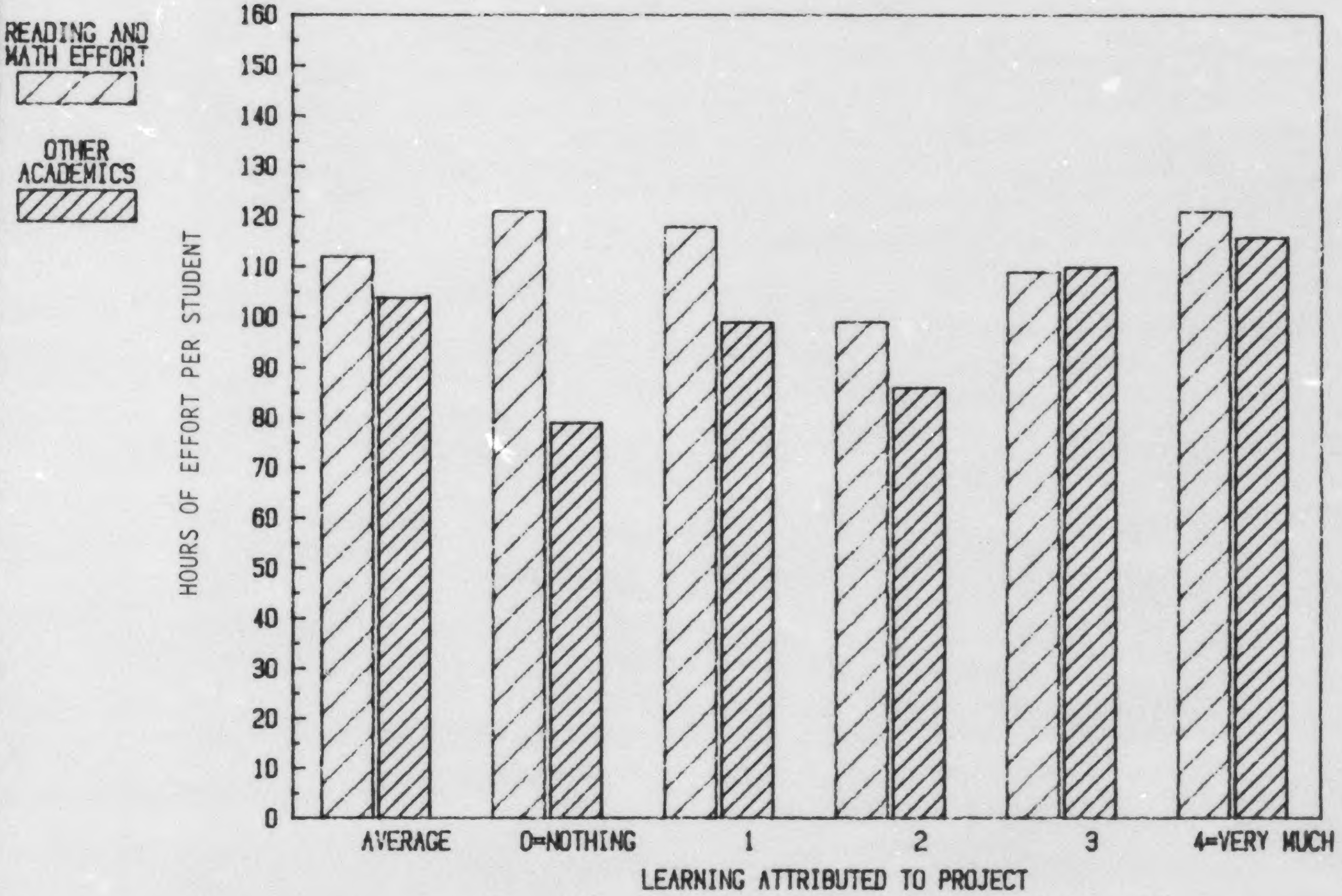


FIGURE 6-8

STUDENTS' REPORT OF IMPACT ON READING BY HOURS OF EFFORT



other sources were regular math or reading teachers, other classroom teachers, and non-Part A tutors. The ratings of these other sources in comparison to Part A ratings are presented in Table 6-27. The table shows that those students who had Part A teachers or tutors rated their impact on math and reading as approximately equal to the impact of regular classroom teachers. The ratings of all sources were relatively close, however, so the students may have had difficulty in defining the separate impacts of the various sources.

TABLE 6-27

STUDENT MEAN RATINGS OF IMPACT OF LEARNING FROM VARIOUS SOURCES*

	Math		Reading and Language Arts	
Source of Learning	Respondents	Mean	Respondents	Mean
Reading or math teacher	1,638	2.48	1,748	2.78
Other classroom teacher	1,672	2.69	1,603	2.45
Part A teacher or tutor	954	2.59	1,084	2.63
Other teacher or tutor	1,523	2.35	1,456	2.26

*Scale: Nothing at all = 0, Very much = 4

A Summary of Research Concerning Indian Student Achievement Test Scores[14]

In order to put the results of the academic performance data in better context, a meta-analysis of studies which reported achievement test results for Indian students was performed. Literature covering the span of the past forty years was intensively examined to find studies which contained achievement test data from significant numbers of Indian students, and which presented test results which could be converted into standardized scores or "effect sizes."[15] Data from 16 separate studies were used in the analyses (see Table 6-28 for an overview of data sources used). The results within decades were then combined, with the exception that the achievement test data from Development Associates' current study were treated separately from the other studies in the 1980s.

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[14] This section summarizes an extensive meta-analysis contained in Monograph 1: Academic Performance Attendance, and Expectations of Indian Students in Public Schools.

Table 6-29 summarizes the results of the meta-analysis. All of the studies which were examined showed that Indian students scored below the norms on standardized achievement tests. The scores in the decades of the 1950s and 1980s were significantly higher than the scores in the 1960s and 1970s.

When the meta-analysis began, it was expected that a steady improvement would be found in Indian achievement with the addition of, first, Title I (now Chapter 1) and other programs generally targeted to the disadvantaged (1960s), followed by the Part A Program targeted to Indian students (1970s), culminating in the institutionalization of these programs (1980s). Instead, the data indicate the progress has been irregular. It appears that the relatively favorable situation of the 1950s deteriorated somewhat in the 1960s and further in the 1970s, but that by the 1980s' results there had been a marked improvement for each grade range. This picture of change over time is depicted in Figure 6-9, where curves for each collapsed grade level (lower elementary, upper elementary, junior high, and senior high) are plotted across the four time periods (1950s, 1960s, 1970s, and 1980s).

Explanations for the shape of the curve can only be conjecture, and, of course, include the possibility that seriously different types of students are

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[15] Materials reviewed were obtained from searches of the ERIC system, the Native American Research Information System (NARIS) at the University of Oklahoma, suggestions from individual Indian education experts, and a survey of all 50 SEAs and all LEAs with 500 or more Indian students. From this, almost 100 promising studies were located and examined. The effect size conversion approach was that of Glass (1976).

TABLE 6-28

SUMMARY OF DATA SOURCES USED IN THE META ANALYSIS OF READING AND MATH ACHIEVEMENT TEST SCORES OF AMERICAN INDIAN PUBLIC SCHOOL STUDENTS: 1950-1982

Data Sources	Date of Data Collection	Number of Indians		Grade Levels	Location/Sites
		Reading	Math		
For 1950's					
Coombs (1958)	1951-54	3,054	3,054	4-12	Phoenix, Albuquerque, Aberdeen, Billings, Anadarko, Muskogee
For 1960's					
Coleman (1965)	1965	5,500*	5,500*	6, 9, 12	National
Bass (1971)	1967-69	1,882	1,882	10-12	Aberdeen, Juneau, Muskogee, Navaho, Phoenix School Districts
Merz (1970)	1969	108	108	1	New Mexico, Arizona, Oklahoma, Texas
Albert (1971)	1967-69	600	600	3, 6	New York state
Sanders (1972)	1967-69	51**	0	1-3	Adair County, Oklahoma
For 1970's					
Maynor (1970)	1970	127	127	6-12	North Carolina
Bass (1971)	1970	475	435	11-12	Aberdeen, Juneau, Muskogee, Navaho Phoenix School Districts
Sanders (1972)	1970-71	51**	0	4-5	Adair County, Oklahoma
Glass (1972)	1975	50	49	4, 6	Detroit, Michigan
Talley (1975)	1975	60	0	9-12	South Dakota
Jackson (1978)	1978	54	0	7-8	Arizona
For 1980's					
New Mexico Department of Ed. (1980)	1980	3,962	3,962	5, 8, 11	New Mexico
Arizona Department of Ed. (1981)	1981	25,242	25,119	1-12	Arizona
Development Associates, Inc. (1983)	1981	6,341	6,340	3-11	National
Takai & Huddleston (1982)	1980	495	495	10, 12	National

*Estimated, exact numbers not provided.
**Longitudinal.

TABLE 6-29

SUMMARY OF RESULTS OF META ANALYSIS

Achievement Test Type and Time Period	Mean Grade Level Sample Size	Effect Size (in Z-score units)	T Score Equivalent ($\bar{X}$=SD.=10)	Percent of Indian Students Scoring Below Group Mean
Reading				
1950s	339	-.37	46	64%
1960s	1030	-.96	40	83
1970s	90	-1.26	37	90
1980s (Development Associates)	704	-.36	46	64
1980s (Other)	2434	-.63	44	74
Mathematics				
1950s	337	-.42	46	66%
1960s	1084	-1.04	40	85
1970s	74	-1.03	40	85
1980s (Development Associates)	704	-.38	46	65
1980s (Other)	2434	-.47	45	68

being compared. Indeed, this is particularly possible with respect to the 1950s sample.[16]

Regardless of the problem with the 1950s sample, the data clearly indicate there has been significant improvement in Indian student test scores since the late 1960s. Further, data from this study and others in the 1980s indicate student achievement scores have increased to their highest level in over a decade. The data from this study also suggest that the Part A Program has had some academic impact on its students and may have contributed to the increase. Finally, the data show that the "high" 1980s scores were still below the norms on

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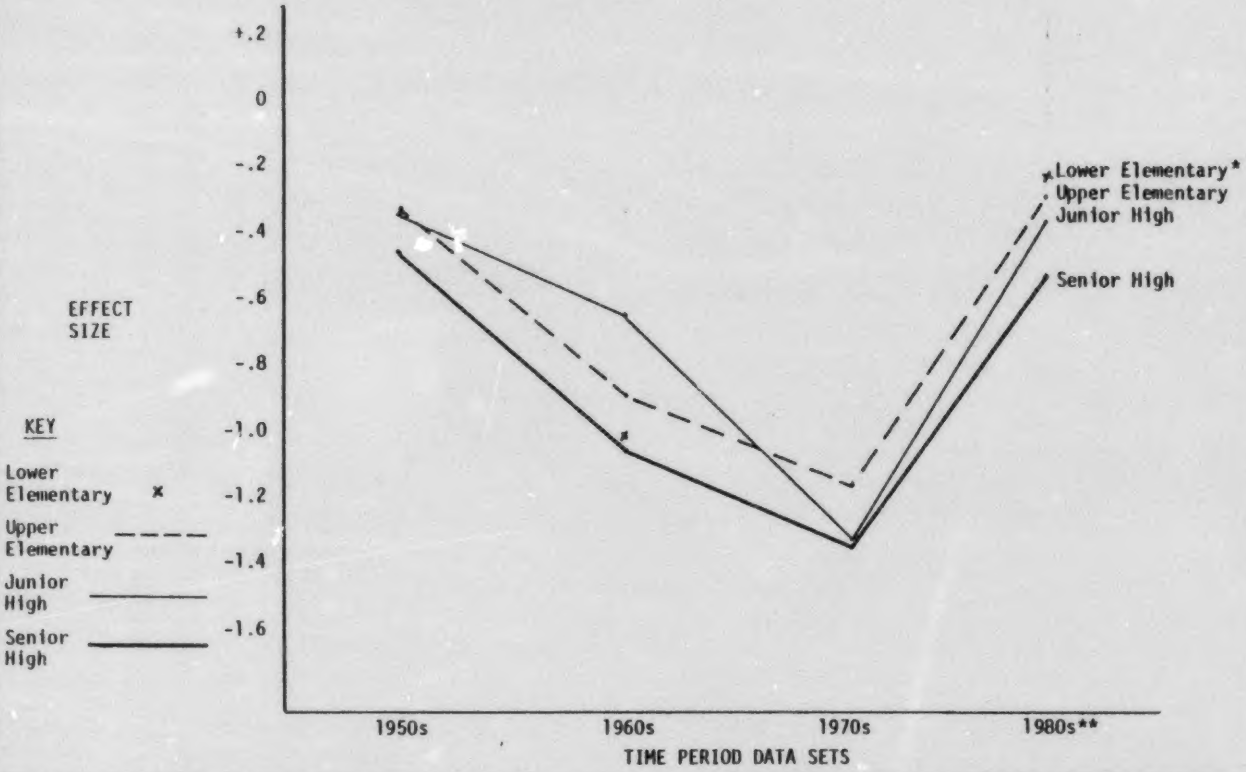
[16] For example, it may be argued that the Indian students in 1950s in the Coombs study were self-selected (e.g., high SES) and academically superior to their non-public school counterparts. If this is true, the curve for a more representative sample of Indian students might have taken a different shape.

FIGURE 6-9

MEAN EFFECT SIZES OF READING ACHIEVEMENT FOR INDIAN STUDENTS AT FOUR COLLAPSED GRADE LEVELS AND ACROSS TIME*



*There are only 2 points (shown by the x's) for the lower elementary grade range (for 1960 and 1980), plotting a line between these points would probably be misleading but they are included because they are about where expected, given the other grade level curves.

**1980 data only from the evaluation sample, not Arizona/New Mexico.

standardized achievement tests. Thus, much progress has been made, but not to the extent of Indian students' gaining academic parity with the general population.

Chapter Summary

The results of this evaluation and other studies have underscored the academic needs of Indian students. Indian student samples have consistently fallen below the national norms on standardized achievement tests, although the pattern of such scores appears to have varied across decades.

Most Part A projects include a formal component to improve the academic performance of Indian students. The nature of almost all Part A academic activities is supplementary, however, and their impacts should therefore be expected to be limited in size and focused on subpopulations of Indian students. For this reason, longitudinal achievement testing was not considered appropriate to assess the impact of Part A projects. Instead, impact ratings were collected from a variety of different sources and their combined ratings were used to form a judgment of academic impact. Independent ratings of academic impact were collected from Part A project staff, project tutors, regular classroom teachers, parents, and tutored students.

Tutor ratings suggested that approximately half of the tutored students had improved their performance in reading and mathematics between fall and spring, and that almost all of the remaining students had maintained their previous levels of performance. Project staffs and classroom teachers indicated that the projects had had some impact on Indian student performance in reading and language arts, and classroom teachers and parents indicated that the projects had had some impact on student grades. Finally, students rated the impact of their Part A tutoring as 2.59 in mathematics and 2.63 on reading on a scale of how much the student had learned that ranged from 0 = Nothing at all to 4 = Very much.

While the ratings of these various sources could be questioned on a item-by-item basis, the cumulative effect of these generally positive ratings leads to the conclusion that many projects are having a positive impact. The positive ratings of relatively disinterested observers such as classroom teachers and parents are particularly meaningful.

Finally, the study shows that Indian student achievement scores have increased significantly and are at their highest level in over a decade. Since the study also suggests the Part A Program has had some academic impact on its students, Part A may have contributed to this increase.

The general finding of positive academic impact should be tempered by the fact that Indian students, overall, still fall slightly below[17] national norms on standarized achievement tests, and increasingly so in the upper grades. Also, ratings of academic impact by Part A staffs, classroom teachers, parents, and Indian students were only mildly related to the extent of project effort spent on academic activities. Thus, the relationship of formal project efforts and improvements in Indian student academic performance is not clear.

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[17] Using T score conversions where the national norm = 50, students scored 2.89 points on reading and 2.71 points on math below the national norm.

CHAPTER 7: STUDENT ATTENDANCE AND RETENTION

Introduction

Low attendance levels and high dropout rates among Indian students have been cited frequently as major problems in Indian education. Many Part A projects have taken steps to address these problems. Some projects have defined improving attendance (60 percent of projects) or reducing dropout rates (58 percent of projects) as primary objectives. These issues have also been addressed, however, as part of other project activities. For example, among the 38 percent of projects which are carrying out home-school liaison activities, student attendance was the most frequently (82%) mentioned reason for contacts with parents. Similarly, of the 48 percent of projects which provided counseling services, retention was among the concerns most frequently discussed by Indian students with project counselors. Improved student attendance was also a frequently reported objective of the Part A cultural activities, since these, it was anticipated, would provide added attendance incentives. Thus, whether formally or informally, attendance and retention constituted important goals of a substantial number of Part A projects.

Data on these issues were, therefore, collected as part of the evaluation of the impact of the Indian Education Program. The findings from analyses of these data are presented here.[1] Although there are differences, many of the causes of both poor student attendance and dropout from school are the same; economic problems, poor attitude toward school, and family responsibilities are high among these. For this reason, these two topics are discussed together. The presentation focuses first on analyses of longitudinal attendance data on Indian students from the sites visited for this study. Next, the hours of effort devoted by the project to improving attendance rates are related to attendance levels. This is followed by an analysis of ratings by parents, teachers, and project staffs of the impact which Part A projects have had on improving attendance. The last portion of the presentation deals with the issue of Indian student dropout rates over the past decade, and local perceptions of the impact of Part A projects on reducing dropout rates.

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[1] A more detailed discussion of the results of this study concerning Indian student attendance and retention is contained in Chapters 10, 11, and 12 of Monograph 1: Academic Performance, Attendance, and Expectations of Indian Students in Public Schools.

Analyses of Longitudinal Attendance Data

The Part A impact study collected data on the attendance of Indian students in participating school districts visited in the fall of 1981. Several types of analyses are reported. First, mean attendance of Indian students is compared with national average attendance figures and longitudinal analyses are presented which examine trends in attendance over the school years 1977-78 to 1980-81. Next, the mean attendance rates of various subgroups of Indian students are examined for diferences among them.

Procedures: School records were consulted for information concerning attendance levels (i.e., number of days attended) of individual Indian students included in the study sample. Attendance and grade level data were sought for each school year from 1977-78 through 1981-82. Because data were provided by districts at different points in time during 1981-82, the last full year for which attendance data were available was 1980-81. For this reason the longitudinal analyses of attendance data used the attendance data for the school years 1977-78 through 1980-81.

The study sample of students was constructed by taking a probability sample of the Indian students in grades 4-12 who were enrolled in the 115 school districts visited, and who attended schools and grades within those schools where Part A project activities were available. The 13,737 included in the sample were those who filled out questionnaires during the fall 1981 visit to each school district. Attendance data were sought only for those students, since some of the analyses involved determining relationships between student questionnaire items and attendance levels. Of the 13,737 students who filled out fall questionnaires, attendance data for at least one year were obtained for 8,376 students (61 percent of those who filled out questionnaires).[2]

Since objective attendance data were available for only a "subset" (61%) of the students who filled out questionnaires, the data bases used for the attendance analyses were reviewed to determine whether attendance levels in the subset of students varied from the total student sample. Three data bases were examined in this regard:

(1) Fall Questionnaire File: Includes program participation, attitudinal and related information based on responses to the Fall 1981 Student Questionnaire by 13,337 students.

(2) Complete Attendance File: Includes available attendance, grade level, and school district background (e.g., size, location, etc.) data obtained from school records for 8,376 Indian/Alaska Native students for the school years from 1977-78 to 1981-82. These students are a subset of the 13,337 who filled out questionnaires in the fall. As the largest body of attendance data, this file was used to calculate overall mean attendance rates for Indian students and to examine differences in attendance levels by grade and by varying school district characteristics.

(3) Merged Attendance File: Includes attendance, attitudinal, standardized reading and mathematics achievement test scores, demographic characteristics and school district characteristics (size, location, etc.)

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[2] District-level and student-level factors were about equally associated with the unavailability of attendance data. Attendance data were simply unavailable in 17 of the 115 school districts included in the sample, which included 2,473 of the 13,737 students who filled out questionnaires. Attendance data were not obtained in these districts because the data: (1) could not be released without violating school district policies concerning confidentiality; (2) were inaccessible or impractical to retrieve (e.g., records were kept in individual student files by the student's teacher, often in several schools); (3) had been destroyed due to fire; or (4) on individual students for past years were not retained (i.e., only aggregated data were available). Attendance data were unavailable for the remaining 2,888 students who filled out questionnaires because: (1) individual student records were missing or had been misplaced or (2) students had recently moved into the school district.

on students who completed both the Fall and Spring Student Questionnaires. This file was used to conduct analyses concerning the influence of various factors on Indian student attendance levels. The 6,597 students in this file are a subset of the two files previously described.

In the Merged Attendance File, students who attended 75 or fewer days of school were excluded from the analyses for that year. This was done because such low attendance suggested a transfer during the school year or other factor which could have introduced an artifact into the measurement of school attendance.

To determine whether the subset of students used for the attendance analyses varied in attendance levels from the total student sample, the students in the Fall Questionnaire File were compared with the students in the Merged Attendance File on a self-report, five-point scale item which asked "How often do you attend school?" by selecting one of five categories.[3] Mean scores for both data files are quite similar. For grades 4-6, the mean is 1.84 for both files. For grades 7-12, the means for the Fall Questionnaire File and Merged Attendance File are 1.68 and 1.58, respectively. In addition, frequency distributions for the two files show a similar pattern for both grades 4-6 and grades 7-12. Thus, no meaningful bias seems to have been introduced at either grade range when using a subset of all sampled students.

Students in the Complete Attendance File (N = 8376) were also compared for possible differences in attendance rates with the subset of these students in the Merged Attendance File (N = 6597) on the number of school days attended during the 1980-81 school year. The mean number of days attended by students in the

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[3] The scale was as follows: 1 = Attend all of the time; 2 = Attend most of the time; 3 = Miss about one day a week; 4 = Miss about two days week; and 5 = Miss more than two days a week.

Complete Attendance File was 162.4, compared with a mean of 165.2 for the subset of students in the Merged Student File. Thus, the mean attendance figures for the Merged Attendance File are slightly higher than the Total Attendance File. Most of the difference can be accounted for by the exclusion from the Merged Attendance file of students who attended 75 or fewer days (N = 137). The mean for the Complete Attendance File when these same students are excluded is 164.1.

As a final check of the attendance files, attendance data for 951 Indian students not included in the Complete Attendance File were analyzed. These data were obtained in 41 projects concerning Indian students who did not complete the student questionnaire, do to being absent from school on the day of the survey or for other reasons. The means for this group were very similar to those for the Complete Attendance File. In 1980-81, for example, the mean days of attendance for the two groups were identical (162.4 days).

Trends in Indian Student Attendance from 1977-78 to 1980-81 and Comparison of Indian Student Attendance Levels with National Average: Indian student average attendance levels were compared with national average attendance figures reported by the National Center for Education Statistics (NCES).[4] The NCES attendance averages have also been quite stable over the years. From 1960 to 1980, during which time NCES published average attendance figures for several (but not all of the years), the average ranged from a low of 159.5 days in 1974 to a high of 163.5 days in 1966. There was no particular trend in these data either upward or downward.

Although there are some differences in methodologies used by NCES and this study, and some problems inherent in the data collected for both efforts, the principle used for calculating average attendance figures is the same. Both studies divide an aggregate days of membership figure (i.e., total number of school days attended) by the number of students. There are two differences in methodologies. First, NCES uses aggregated data reported by states, whereas this study uses individual student data. However, the data collected by NCES is ultimately based upon individual students within the states. Second, NCES averages are based, in part, on estimates of enrollment or aggregate days membership whenever states do not report data in the standard form. Any estimates calculated by NCES are based upon their past experience in gathering enrollment and attendance data over many years. In brief, the NCES data appear to be comparable to the data in the study, since the principle used in calculating average attendance is the same in both.

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[4] An attempt was made to collect district-wide data on average daily attendance from the districts included in the sample. Many of the districts had not compiled attendance data in a manner suitable for such analyses, however, so district-specific comparisons were not made.

An examination of mean Indian student attendance levels, shown in Table 7-1, shows little change, varying from a low of 162.0 days in 1977-78 to a high of 163.5 days in 1979-80. These figures are about the same as, or slightly above, the national average of 161.6 days for 1975-76 and 160.7 reported for 1980-81.

Another attendance "norm" was calculated to provide a more accurate comparison of Indian student attendance levels with non-Indian norms. This norm was calculated by: (1) multiplying the number of Indian students within each state for whom attendance data were available by the state average number of days attended, as reported by NCES; (2) summing the resulting numbers; and (3) dividing the sum by the total number of students. This norm provides a more accurate comparison because: (1) the only states included in this norm are those where attendance data were gathered on Indian students and (2) state averages were represented proportionally in the calculations according to the number of Indian students for whom data were available. The norm (mean number of days attended) calculated using these procedures was 161.7 for 1980-81, about one day above the national average reported by NCES. The Indian student averages, shown in Table 7-1, are about the same or slightly above this norm.

As a final comparison, average attendance rates for Indian students within each district were compared with the relevant state average. Districts were categorized according to how many days their Indian attendance rate varied from the state average. In more than half (51%) of the districts, the Indian student average attendance rate was higher than the relevant state average (see Table 7-2). In 37 percent of the districts, the average attendance rate was lower.

Given the methodological issues involved in data collection and analysis, it is difficult to draw firm conclusions concerning relative attendance levels of

TABLE 7-1

AVERAGE DAYS OF ATTENDANCE REPORTED PER INDIAN STUDENT BETWEEN 1977-78 AND 1980-81

School year	Number of Days Attended by Enrolled Indian Pupils			Estimated National Mean Days of Attendance***
	N*	Mean	Standard Deviation**	
1980-81	8018	162.4	21.4	161
1979-80	6930	163.5	19.2	161
1978-79	6507	162.7	20.6	161
1977-78	5463	162.0	20.8	161

*The potential number of students about whom data could be collected decreased each year by one grade cohort on each district (i.e. entering kindergarteners or first graders). There was also considerable attrition in the number of students for whom data were available due to student transfers, data missing from school records for individual students, and the unavailability of data for all students from several districts for earlier years.

**The standard deviations associated with the Complete Attendance File are larger than might be expected. This is because of the inclusion of a number of students with very low numbers of attendance days. When students with fewer than 76 days of attendance are excluded, the standard deviations are considerably reduced (1980-81, 15.7; 1979-80, 14.2; 1978-79, 13.8; 1977-78, 14.6).

***The most recent national average number of school days attended per pupil was 160.7 for 1980-81; the average for 1975-76 was 161.6. An examination of previous years' national average figures published by NCES since 1966 shows little variation from those reported above. National attendance figures are presented in annual reports published by the National Center for Education Statistics entitled Digest of Education Statistics.

Indian students and the population as a whole. It does appear, however, that Indian attendance is in the same range as that of the general population, and that Indian attendance rates remained relatively stable from 1977-78 to 1980-81.

TABLE 7-2

COMPARISON OF SCHOOL DISTRICT INDIAN STUDENT ATTENDANCE AVERAGES WITH STATE AVERAGE ATTENDANCE RATES

Difference in Days When Overall State Attendance Average is Compared with Indian Student Average within Each School District	Number of School Districts	Percentage of School Districts
Indian student attendance average more than five days below state average	27	28%
Indian student attendance average one to five days below state average	9	9
Indian student attendance average from one day less to one day more than the state average	11	11
Indian student attendance average one to five days above state average	25	26
Indian student attendance average more than five days above state average	24	25

These findings contradict the widely-held belief that attendance rates of Indians fall far below those of white students. Efforts were made to locate other research studies at the national level which compared attendance rates of Indian and non-Indian students. The most comprehensive recent study which was located (Coleman, 1966) found attendence rates for Indian students to be identical to those for the population as a whole (95% for elementary students and 93% for secondary students). The results of the present study plus those of Coleman thus bring into question the belief that Indian students have much lower attendance rates than other students.

Factors Affecting Indian Student Attendance Levels: Two types of factors which could affect attendance levels were investigated: student demographic characteristics and school district characteristics. The most striking result of these analyses was the lack of variation in attendance levels. The differences between the means for subgroups (i.e., students grouped according to demographic and school district characteristics) were generally small, amounting to one to three school days. The comparisons of the attendance levels by student demographic characteristics are summarized first, followed by summaries of the comparisons of attendance levels by school district characteristics.

- Effects of Student Characteristics on School Attendance: The effects of grade level, sex, and socioeconomic status on school attendance levels are described below:

  Grade Level. Attendance data were gathered on individual students for each year over a four-year period. Thus, the students at each grade level were different for each year, since nearly all students were promoted one grade each year. The means for each grade level in each year are shown in Table 7-3.

  The attendance data were first examined to determine whether attendance levels change by grade levels within each year. The first comparison shows that the attendance of Indian students generally increased from kindergarten through the fifth and sixth grades, held steady through grades seven or eight, and then dropped slightly in the high school grades. These shifts were generally small in magnitude; means for individual grade levels within years varied from the overall yearly means by more than three days in only three of 36 cases, if those grade levels with very small N's were excluded.

  The attendance data were next examined to determine changes in attendance levels for particular grades across years (i.e., grade 3, 1977-78, vs. grade three , 1978-79); little change was found. The greatest difference in means at a particular grade level is less than three days.

  Sex. Attendance data were reported for a nearly equal number of male (48%) and female (52%) Indian students. A comparison of their attendance levels, shown in Table 7-4, reveals only minor differences.

Socioeconomic Status: The socioeconomic status (SES) of Indian students was estimated by whether or not the student's school lunch was subsidized. SES and attendance data were reported for a total of 3,143 students. (The number was relatively low because many of the school districts failed to provide SES data on an individual student level.) Of the students with available data, 70 percent had subsidized school lunches, and 30 percent did not. The results (see Table 7-5) show that students with subsidized school lunches (lower SES) had consistently lower attendance averages than did students with unsubsidized lunches (higher SES). The differences in mean attendance levels were small; the greatest differences, 2.1 days, occurred in 1977-1978.

TABLE 7-3

MEAN DAYS OF ATTENDANCE BY GRADE
FOR INDIAN STUDENTS FROM 1977-78 TO 1980-81

Grade	1977-78	N	1978-79	N	1979-80	N	1980-81	N
K	156.7	563	155.5	12	--	--	--	--
1	159.5	904	161.8	886	166.7	15	--	--
2	162.3	831	161.9	1014	162.7	979	167.5	13
3	161.4	775	163.8	971	163.7	1066	163.6	1140
4	164.9	730	164.1	885	164.6	1019	163.4	1183
5	163.7	544	163.7	847	164.6	918	163.7	1135
6	164.4	467	162.6	613	164.5	886	163.3	1044
7	162.8	321	162.2	497	162.5	618	164.1	1057
8	164.9	314	162.3	380	163.5	496	162.0	700
9	168.3	4	161.1	393	163.6	479	161.3	667
10	--	--	137.0	4	161.1	443	158.5	559
11	--	--	--	--	160.3	8	156.0	506
12	--	--	--	--	--	--	157.3	9
TOTAL	162.0	5453	162.7	6502	163.5	6927	162.4	8013

TABLE 7-4

MEAN DAYS OF ATTENDANCE BY SEX FOR INDIAN STUDENTS FOR 1977-78 TO 1980-81 (MERGED ATTENDANCE FILE)

Sex	School Year							
	1977-78	N	1978-79	N	1979-80	N	1980-81	N
Male	164.5	1858	165.8	2207	166.0	2382	165.4	2839
Female	164.2	2081	165.3	2448	165.8	2630	164.9	3090

TABLE 7-5

MEAN DAYS OF ATTENDANCE BY SOCIOECONOMIC STATUS FOR INDIAN STUDENTS FOR 1977-78 TO 1980-81 (MERGED ATTENDANCE FILE)

Socioeconomic Status	1977-78	N	1978-79	N	1979-80	N	1980-81	N
Lower (eligible for federally subsidized school lunch)	163.8	1337	165.3	1495	165.3	1693	165.5	1991
Upper (not eligible for federally subsidized school lunch)	165.9	612	166.5	677	167.3	756	166.2	873

- Effects of School District Characteristics on Attendance: The effects of various school district characteristics on Indian student attendance are presented below:

Location. The school districts included in the Part A impact evaluation were classified into four location types: on or near reservation; other rural locations; urban, non-metropolitan locations; and metropolitan locations. The school districts in other rural areas showed the highest overall attendance across the years; only in 1977 was a higher attendance level found in another location, metropolitan (see Table 7-6). However, the attendance levels in all school district locations closely paralleled the overall means for each year; varying at most by about three days.

Indian Density. The school districts included in the Part A impact evaluation were categorized by the density of the Indian enrollment in each. There were four categories: .0001-5 percent Indian enrollment; 5-20 percent; 20-70 percent; and over 70 percent. School districts with either high or low density of Indian students showed the highest mean attendance levels across the years, but attendance in all districts varied less than three days from the overall mean (see Table 7-7).

TABLE 7-6

MEAN DAYS OF ATTENDANCE BY LOCATION
FOR INDIAN STUDENTS FOR 1977-78 TO 1980-81

Location	1977-78	N	1978-79	N	1979-80	N	1980-81	N
On or near reservation	161.9	2224	160.9	2623	161.0	2828	159.9	3367
Other rural	161.6	1903	164.2	2398	167.0	2420	166.6	2771
Urban, non metropolitan	161.1	580	162.3	653	162.3	792	162.6	848
Metropolitan	163.9	756	164.2	833	163.4	890	161.2	1031
TOTAL	162.0	5463	162.7	6507	163.5	6930	162.4	8017

TABLE 7-7

MEAN DAYS OF ATTENDANCE BY DENSITY OF INDIAN STUDENTS
FOR 1977-78 TO 1980-81

Density of Indian Enrollement	1977-78	N	1978-79	N	1979-80	N	1980-81	N
.0001- 5%	163.2	1043	164.7	1389	165.5	1387	162.6	1572
5 - 20%	161.2	1489	161.7	1723	162.0	1937	161.2	2070
20 - 70%	161.3	1763	161.5	1950	163.6	2114	162.9	2488
Over 70%	162.9	1168	163.4	1445	163.6	1492	163.0	1887
TOTAL	162.0	5463	162.7	6507	163.5	6930	162.4	8017

Geographic Region. The data on Indian attendance were analyzed by geographic region. Attendance was more than three days higher than average in the Southeastern region of the country. Attendance was more than three days lower than average in the Dakotas, California, the Northwest, and in Arizona and New Mexico. The lowest attendance figures were from the Dakotas and California, which were each approximately six days below national Indian student means.

Part A Project Efforts to Improve Attendance: The Part A projects varied in the extent of effort expended, in the year 1981, in attempting to improve the attendance of Indian students. The extent of effort was measured by the reported average number of hours per student per year applied in improving school attendance. These data were merged with the attendance data for the individual Indian student. The mean attendance trend for students with zero hours of attendance effort was calculated and used as a reference group. The remaining projects were categorized by the number of hours of effort applied per student per year in improving attendance. The students in projects in all but one category of hours of effort had attendance trends indicating a lower level of attendance in the years 1977 through 1979 than did the students in projects expending zero effort on attendance. In other words, projects that had students with relatively low attendance in the years 1977 through 1979 expended effort on improving attendance; projects with relatively high and stable attendance expended zero effort.

The projects reporting 21-40 hours of effort per student deviated from the pattern. The students in these projects had attendance levels higher than did students in projects applying zero effort. However, these students showed a trend of declining attendance from 1978 through 1980, although the actual level was relatively high in all three years. These projects seemed to respond to this decline in attendance with an application of 21-40 hours of effort per student, on the average, to bring attendance back to the level of earlier years.

Projects that expended 41-80 hours of effort on improving attendance had students who tended to improve their attendance each year, at a slightly decreasing rate, from a level four days below the reference group in 1977 to just above the reference group and the grand mean in 1980. Projects that devoted 81-160 hours had students who had shown a sharp decline in attendance from 1978 (the earliest data available for these students) to 1979. Their 1979 level was six days below the grand mean and reference group. Between 1979 and 1980, there was a sharp increase in the attendance of these students to the level of the grand mean and of the reference group. Projects that expended over 160 hours (up to several hundred hours reported per student per year) had students who had steadily declined in attendance from a point just below the reference group in 1977 to a level about three days below the reference group in 1979. These students showed a very slight improvement between 1979 and 1980, but were still a full day below the reference group and the grand mean.

Attendance Gains for Students with Low Attendance in 1979: The longitudinal analyses considered all students as a group. To assess the impact of Part A projects on students who were in particular need of help in attendance, an analysis was conducted on a subgroup of students with attendance of 150 or fewer days in 1979. This Low Attendance Group contained 386 students and was divided into two classifications: a Successful Group, which had had a gain of 15 or more days between 1979 and 1980, and an Unsuccessful Group that had gained fewer than 15 days.

The analyses compared four groups of students: Unsuccessful Group, Successful Group, Total Low Group, and Total Students. The differences among the groups are presented in Table 7-8. The mean difference of attendance between 1979 and 1980 for the Low Attendance Group was much higher than for the Total Group, indicating that, overall, these students had tended to improve attendance to a greater extent than had the average student. This difference, however, could be at least partially accounted for by regression to the mean. Of the Low Attendance Group, students in the Successful Group had a very high mean difference of 36.1 days, while the students in the Unsuccessful Group had a mean loss of 2.7 days between 1979 and 1980. The Successful Group represented 46 percent of the Total Low Attendance Group.

Differences existed among the groups based on the mean number of hours of effort expended by the Part A projects during 1981-82 to improve attendance rates. Projects serving the students in the Successful Group expended a much larger mean number of hours on improving attendance than did projects serving the students in other groups (see Table 7-8). The causality of this relationship is complicated, however, by the fact that the information about project effort was collected for a period 1-2 years after the data on student attendance. If project effort on attendance is relatively stable across years, these data may indicate that projects with intensive special programs were successful in improving the attendance of low attending students. However, the number of students who showed such improvement is extremely small (4 percent of the total group).

TABLE 7-8

MEAN DIFFERENCES IN ATTENDANCE MEANS IN DAYS BETWEEN 1979-80 AND 1980-81 AND MEAN HOURS OF EFFORT EXPENDED BY PROJECT TO IMPROVE ATTENDANCE IN 1981-82

Student Group	N	Mean Days Of Difference	Hours Of Effort By Project
Unsuccessful	207	- 2.7 Days	25.5 Hours
Successful	179	36.1	45.7
Total low attendance	386	15.3	35.0
Total students	4516	0.2	25.0

Local Ratings of Project Impact on Attendance

In addition to the attendance data collected from school records, the study also collected information from teachers of Indian students, Part A project staffs, and parents of Indian students. All three respondent groups reported that the Part A project had produced a positive impact on student attendance. Project staffs were most positive in their ratings (mean = 3.14 on a scale of 1 = No impact, 2 = A little, 3 = Some, and 4 = A great deal). Teachers gave somewhat lower ratings (mean = 2.83), and parents gave the lowest ratings (mean = 2.42). As shown in Table 7-9, ratings for all groups were highest for projects on or near reservations or in other rural areas, and were lowest for projects in metropolitan areas.

TABLE 7-9

MEAN OF PROJECT IMPACT RATING ON ATTENDANCE BY LOCATION OF SCHOOL DISTRICT*

Location Type	N	Staff	Teachers	Parents
On or near reservation**	38	3.25	2.97	2.69
Other rural	29	3.25	2.96	2.39
Urban	13	3.04	2.76	2.36
Metropolitan	21	2.83	2.43	2.00

* Rating Scale: No impact = 1, A little = 2, Some = 3, A great deal = 4.
** Difference between locations for all groups: $F = 8.95$, $df = 3/291$, $p < .001$.

Ratings were higher for those projects that specifically devoted hours to improving attendance, but even those projects that did not formally devote efforts to attendance were rated as having a little to some impact (see Table 7-10). The specific number of hours devoted to improving attendance was not systematically related to ratings of impact.

TABLE 7-10

MEAN RATINGS OF THE IMPACT ON ATTENDANCE BY HOURS OF PROJECT EFFORT ON ATTENDANCE*

Hours Per Student Per Year	N	Staff	Teachers	Parents
0**	41	2.92	2.69	2.32
1 - 20	24	3.40	2.93	2.46
21 - 40	12	3.15	2.88	2.12
41 - 80	17	3.24	2.95	2.55
81 or more	7	3.29	2.91	3.03

* Rating Scale: No impact = 1, A little = 2, Some = 3, A great deal = 4.
** Difference between projects for all groups: $F = 7.11$, $df = 4/285$, $p < .05$.

Dropout and Retention

A review of the literature on school dropout reveals that Indian students share many of the same characteristics and reasons for dropping out of school with non-Indian students. However, attention must also be paid to certain culture-specific factors associated with Indian lifestyle and environment. Acccording to Szasz (1974), Indian non-participation and failure within the educational system arises from the system's lack of relevance as perceived by American Indians, coupled with its failure to deal with Indian cultural traditions and values. Many Indian families still operate on the basis of a mutual sharing or reciprocal relationship wherein family needs take priority over the demands of the larger, majority society. Hanks (1973), for example, found that Indian dropouts frequently cited their being needed at home to care for younger siblings and elders as a reason for leaving school.

Other family-related factors influencing dropout include mobility and family cohesion. Wax and Wax (1964) found a higher frequency of dropouts among Indian high school students when the father was irregularly employed. Brown (1973) showed that dropouts were characterized by factors indicative of instability in basic family relationships. Moreover, on a practical level, Indian students frequently observe little relationship between educational level achieved and jobs acquired by their parents and older siblings (Kleinfield, 1973).

The general traditions and customs of the student's culture may influence the student. While this is particularly the case with Indians from rural/reservation areas, even those living in urban areas (where the cultural expectations are not as great) report confusion about primary culture and dominant culture expectations, and difficulty in adjusting to competition and the teacher-student learning style of schools.

While many of the factors influencing Indian student dropout have been identified, it is far more difficult to determine the actual rate at which dropout has occurred. There have been a number of studies which have reported Indian student dropout rates. Dropout rates contained in the studies (presented in Table 7-11) range from 14 percent to 60 percent, substantially higher than those of the general population.

TABLE 7-11

DROPOUT RATES IN THE INDIAN AND GENERAL STUDENT POPULATIONS AS REPORTED IN THE LITERATURE

Survey Date	Sample	Indian Dropout Rate**	Overall Dropout Rate	Author and Publication Date
		Percentages		
National				
1959	National	51%	22%	Coombs (1959)
1960	Total BIA Schools	60	30	Thompson and Nelson (1963)
1960*	National	27	14	U.S. Commission on Civil Rights (1978)
1963	Total BIA Schools	60	33	Davids (1963)
1967	National	60	--	Bryde (1967)
1969	Total Indian Population	40	26	"Kennedy Report" (1969)
1970*	National	16	12	U.S. Commission on Civil Rights (1978)
1975*	National	--	25	Grant (1975)
1976*	National	15	5	U.S. Commission on Civil Rights (1978)
1978	Total BIA Schools	40	--	Hopkins (1978)
Regional				
1968	Northwest	50	--	Selinger (1968)
1969	Southwest	39	--	Bass (1969)
1976	Northwest	48	--	U.S. Department of Interior (1976)
1974	New Mexico	26	25	Horten (1974)
1978	Seattle	19	10	Corwin (1978)
1978	Minneapolis (Junior High Students)	50	6	Squires (1978)
1981	New Mexico	14	9	Young (1981)

*Data were acquired through U.S. Census procedures. These studies tend to underrepresent Native American citizens. Therefore, it should not be surprising that the data reflect lower dropout rates.

**These widely varying rates may be due, in part, to different methodologies and definitions. For example, in its periodic population surveys, the U.S. Census Bureau defines a dropout as a person between 16 and 19 who is not enrolled in school and who has not received a high school diploma. The Census Bureau also tends to underrepresent minorities. Selinger (1968), by contrast followed a longitudinal sample of eighth graders as they progressed through or left school.

In order to get a more systematic picture of the trends in Indian student dropout over the past decade, information was collected on the academic and occupational histories of a random sample of 2,098 Indians and Alaska Natives who were sophomores in high school at the visited Part A project sites during the academic years 1970-71, 1972-73, 1974-75, 1976-77, and 1978-79. The objective was to determine if there were changes over time in the educational patterns of Indian students who attended schools receiving Part A funds. Subjects were almost equally divided by sex (male = 1004, female = 1,063). Because ethnicity data on former students were more consistently available for the middle and latter half of the 1970s, the total number of subjects concerning whom follow-up data were collected was greater in the later years (1970-71, 357; 1972-73, 371; 1974-75, 416; 1976-77, 453; 1978-79, 462).

Of the subjects reviewed, 78 percent had graduated from high school, 3 percent had earned a GED,[5] 3 percent were in high school at the time of the survey, and 16 percent had dropped out. A grouping of the dropouts by sophomore year shows no significant change from 1970 to 1979 (1970-71, 20%; 1972-73, 14%; 1974-75, 17%; 1976-77, 17%; 1978-79, 15%). Distribution according to school district location indicates that metropolitan schools had fewer dropouts and more graduates than did schools in other areas (Table 7-12). At the time of the survey, most of the dropouts were either engaged in full or part-time work (50%) or were homemakers (33%); a significant number were unemployed (20%); some were on active duty in the armed services (4%); only three percent were engaged in either vocational, technical, or academic training (Table 7-13).

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[5] The three percent who earned a GED may be considered to have initially dropped out, and then returned to complete their studies. However, in the remainder of this chapter the more conservative definition of "dropouts" (including only those who left school before graduation and did not subsequently complete their studies) is used.

TABLE 7-12

PERCENTAGE OF DROPOUTS AND GRADUATES, BY LOCALE*
(Weighted N=2181)

Project Location	N	Dropouts	Graduates
On or near reservation	960	17%	83%
Other rural areas	543	19	81
Urban areas	276	22	78
Metropolitan	402	12	88

* The actual number of cases reporting information on this topic was 1,881. The table does not include those still in high school or receiving a GED degree after initially leaving school.

TABLE 7-13

CURRENT EMPLOYMENT STATUS OF DROPOUTS IN PERCENTAGES*
(Weighted N=244)

Employment	Dropouts
Full or part-time work	50%
Homemaker	33
Unemployed	20
Active duty in Armed Forces	4
Vocational or technical training	2
Two or four-year academic training	1

* The actual number of cases reporting information on this topic was 216. Data presented in this table were weighted to make the proportion of students supplying information approximately equal across all Part A projects. Responses equal more than 100% due to multiple responses, primarily homemakers who are also employed.

These results confirm the findings of earlier studies regarding the high incidence of Indian student dropout in public schools, and show that the trend over the past decade has been relatively constant.

As noted, the factors that influence retention decisions are varied and complex. Many, such as family mobility and socioeconomic status, are outside the control of the educational system proper. However, others can be dealt with and, as they relate to Indian students, are appropriate concerns for Part A projects. Thus, the perceived impact of Part A projects on reducing dropouts among Indian students was also examined.

Somewhat over half (58%) of the project directors of Part A projects identified reducing dropout as a primary objective of their projects. Only 20 percent of the principals at schools served by these projects considered "reducing student dropouts and increasing student retention" to be primary purposes of the projects.

Information gathered from project staff, teachers, and parent committee members indicated that Part A projects were perceived as having a moderate impact on reducing school dropout. Project staff and non-staff teachers of regular school classrooms attended by Indian students provided mean ratings of project impact on reducing dropout of 3.26 and of 3.05, respectively, on a scale from 1 (No impact) to 4 (A great deal of impact). Indian parent committee members provided mean ratings of 2.99. Thus, while there is no quantitative evidence from this study indicating a reduction in the rate of Indian students dropping out of school between 1970-1979, parents, school teachers, and project staff reported that Part A projects have had some impact in this regard.

Conclusions

Several conclusions can be drawn from the information presented. First, it appears that attendance, as a problem, is no greater among Indian students than among the general student population. Second, where Indian student attendance is below the mean attendance rate for all Indian students, Part A projects are addressing the problem, with more time spent during school hours as the problem increases. Third, individuals with knowledge of the projects (project staff, teachers, and parents) report that projects are having some positive impact on attendance.

Regarding Indian student dropout rates, the data from this study are consistent with previous reports. Indian students do apparently dropout of school at a higher rate than their peers. This is a continuing problem on which no hard evidence was found to support a view that Part A projects have had an impact. While local perceptions of the role of Part A projects in reducing dropout were positive, the Indian student dropout rate has remained relatively constant over the past ten years. It may be that where small numbers of Indian students may have been retained as a result of Part A project activities, the local perceptions of project impact may have been based on these cases, which may not have been sufficient to influence the overall retention trends. Also, the local perceptions of impact on dropout were recorded in 1981, while the latest data on dropouts concerned students who were sophomores in 1978-79.

The findings that Indian students have average or better attendance but also much higher than average dropout rates may appear to some observers to be contradictory. A closer examination of the attendance data, however, indicates that Indian student attendance drops significantly in the upper grades (9-12), which is the time when almost all dropout occurs. The findings may, therefore, suggest that attendance and retention are related phenomena of the high school level, but that retention is not related to factors which influence attendance at lower grade levels.

CHAPTER 8: THE NATURE AND IMPACT OF CULTURAL PROGRAMS

The Part A Program specifically recognizes that many Indian children have culturally related academic needs. The Part A legislation, and the associated regulations that determine the use of funds, direct projects to address these culturally related academic needs and permit a variety of approaches and techniques to do so. Specifically cited in the Part A regulations as permissible are an array of cultural instruction activities. These include:

- Instruction in tribal heritage and traditions in the context of meeting academic needs and in Indian history and political organization, including current affairs and tribal relationships with local, state, and federal governments;
- Creative arts, such as traditional Indian art, crafts, music, and dance; and
- Native language arts, including bilingual projects and the teaching and preservation of Indian languages.

Instruction in culturally related areas is of particular importance to the Indian community. Education is viewed by a great many as being at the center of the Indian community's current efforts to meet the rigors of contemporary society, while strengthening the traditional institutions and values which make-up their special "way of life." Compared with the typical non-Indian child, Indian children often bring to the school a quite different set of values, outlooks, and behaviors. Some are linguistically different and, for many, their upbringing has given them a perception of things, a world view, that is different from the Euro-American world view of most other children who enter the public schools. This has often caused problems for the Indian and Alaska Native children and resulted in their being labeled as slow, learning disabled, defiant, or simply strange. Part A projects are encouraged to use culturally sensitive materials and techniques in program activities to meet these special educational or culturally related academic needs of Indian children.

The evaluation design for the cultural component sought to assess both the impact of the Part A Program on the students and the extent to which the local projects respond to the desires of the Indian community. The methodology used involved several respondents and techniques. Interview questionnaires and rating scales were used with district superintendents, project directors, project staffs, parents, parent committee members, tribal leaders, and Indian students. The findings reported in this chapter are generally based on information from the 74 of 115 projects that indicated they operated a cultural component, with the data weighted to make the findings statistically representative of the universe of Part A projects with cultural components in the study sample. Data from the entire sample of 115 projects are occasionally used, since cultural activities were often provided on an occassional basis (e.g., a field trip, special speaker) even where there was no systematic set of activities or designated cultural component.

This chapter is divided into five sections and a summary. The first section is an overview of major characteristics of the cultural instruction program. Also included here are the perceptions of knowledgeable groups as to the program's relevance, responsiveness, and importance; and the responses of key groups on the effect of the program on the school district and the schools. The next section describes the type and content of cultural instruction -- what was taught, by whom, and how often. The third section provides more detail on the program's impact on the school district, on parents, and on the Indian community. The last two sections then deal with the impact on students, first as reported by various knowledgeable sources, and later by the students themselves.

Overview of Cultural Programs

Nearly two-thirds (64%) of the Part A projects provided what they considered to be a cultural program or a significant set of culturally related activities. Table 8-1 compares projects which do not have a specific cultural program with those which do. In general, those with cultural programs received more funding, served more children, offered more services, served children from more tribes, had a lower density of Indian children, and involved larger school districts. This is consistent with the distribution of cultural programs by setting: over three fourths of the metropolitan and urban projects offered programs, as compared with 62 percent of rural and only 50% of reservation projects. Thus, the farther the projects were from a reservation setting, the more likely they were to offer a cultural program.

TABLE 8-1

SELECTED CHARACTERISTICS OF CULTURAL VERSUS NON-CULTURAL PROJECTS
(N = 865)*

	Number of Projects	Mean Number of Services**	Project Located in Metropolitan or Urban Area	Most Indians in Project Belong to Same Tribe	Density*** of Indian Students At Least 20%	Total Enrollment in District Over 3,246	Mean Number of Project Participants	Mean Amount of Funding for 1980-81
Cultural Projects	550	2.60	44%	68%	34%	41%	244	$56,418
Non-Cultural Projects	315	1.96	20%	83%	45%	24%	219	$47,009

*The actual number of projects was 115 (74 with cultural programs, 41 without). Data were weighted to make the findings statistically representative of all projects.

**The four services are cultural instruction, counseling, home-school coordination, academic instruction/tutoring.

***Density is the number of Indian students enrolled in the district divided by total enrollment.

Within the group of projects offering cultural programs,[1] "Increasing the students' knowledge and awareness of Indian history and culture" and "Increasing the Indian students' pride in their ethnic heritage" were the most frequently (69% and 73% respectively) cited objectives. The most important single goal cited was "Increasing cultural awareness" (32%), followed by "Developing and improving self-esteem as an Indian" (25%), "Increasing value and respect for Indian or tribal heritage" (11%), and "Passing on the tribal culture" (15%).

Within these projects, there was wide support expressed for cultural programs. Indian tribal/community leaders and school district administrators were asked to rate the importance of the projects for Indian students using a four-point scale. Most respondents from both groups in projects with cultural components rated their programs as very important, with the tribal community leaders at 83 percent and district administrators at 74 percent. Most regular classroom teachers were also supportive but less so. Fifty-four percent responded very important and 36 percent responded moderately important to the question "How important do you think it is for Indian students to participate in activities pertaining to Indian cultural heritage?"

In addition, there was broad support from various groups in projects with cultural programs for specific instruction or activities related to Indian history and culture: most tribal leaders (83%), parents of Indian children (78%), parent committee members (74%), school principals (64%), and teachers (74%) felt that public schools have a specific responsibility to teach culturally related topics. However, a significant proportion of the principals (20%) and the teachers (13%) had no opinion regarding this responsibility. Since some principals (16%) and teachers (14%) indicated they did not think it is a school responsibility, the high proportion of no opinion appears to be a genuine reflection of their uncertainty on the issue.

The typical Part A cultural project offered cultural instruction and activities an average of 2.5 hours per week, 28 weeks per year, for a total of 70 hours per year. The typical cultural program had been in operation for nearly six years.

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[1] Unless otherwise indicated the data presented in this chapter are based on the subsets of projects offering a specific cultural program; that is, 64 percent of the sample of 115 projects or 74 projects.

Most (96%) served students from more than one tribe; the average project served 12 different tribes. Consequently, almost all (92%) projects provided both single and multitribal topics, courses, or activities. Indian student bilingualism or Indian/Native language dominance played a major role in determining the nature of the cultural program in only 9 percent, all of which were located on or near reservations or in other rural areas.

All cultural projects involved local Indian people in aspects of their cultural instruction and activities, serving as instructors or assistants in cultural instruction (99%), identifying cultural needs of students (97%), and developing cultural programs and activities (95%). Indian community members or parents were involved in selecting or recommending textbooks in 52 percent of the projects and other educational materials in 64 percent of the projects. Parent committee members had also been consulted about what should and should not be taught in their districts' cultural programs, according to over half of the Indian community members (62%) and project staff members (57%).

The majority (79%) of cultural projects had been able to acquire sufficient cultural materials and resources to carry out their programs adequately. They had received these from various sources, including commercial publishers (83%), the Indian community and/or tribe (67%), the school districts (50%), the Indian Education Resource and Evaluation Center (46%), the SEAs (34%), the Office of Indian Education (27%), the Bureau of Indian Affairs (20%), and miscellaneous other sources (15%). Forty-one percent of the cultural programs also received materials from other Part A projects in the form of curriculum materials, audio-visual materials, and crafts supplies and materials.

Instruction and activities in most (77%) cultural programs took place during the school day and utilized school facilities. However, activities and instruction also took place after school hours in 74 percent of the cultural projects, so most cultural programs offered flexible schedules. The cultural program was considered a part of the overall school program in over half (57%) of the school districts. Cultural program coordinators from projects with cultural activities integrated into the regular school program found this to be an effective approach primarily because they believed it made the program more effective or successful (23%), developed pride in Indian heritage/positive self-image (20%), allowed greater participation by students (18%), and allowed teachers/aides to better implement program (9%).

The staffs also reported that the cultural program was considered part of the regular school program much more frequently in school districts located on or near reservations (84%), in other rural areas (70%), and in urban, non-metropolitan areas (50%) than in districts located in metropolitan areas (15%). This suggests that the concentration of students on or near reservations or in other rural areas made it easier to incorporate cultural programs into the regular school program, whereas their dispersion in metropolitan areas required an extracurricular approach.

Forty percent of the cultural programs were not considered a part of the regular school program. By location, coordinators of 14 percent of the on or near reservation cultural programs, 25 percent of the rural, 50 percent of the urban, and 82 percent of the metropolitan projects said this was the case. The most frequently given explanations were: cultural activities were not a part of the curriculum (34%), students were scattered throughout the school district (23%), holding cultural activities after school was the most convenient time (22%), and cultural activities conflicted with events occurring during the regular school day (18%). The coordinators in 55 percent of these projects indicated that the parent committee had requested the separation; in 34 percent the decision had been made by the school administration or staff and the parent committee jointly, and 11 percent by the school administration or staff.

In the cultural projects which had been integrated into the regular school program, integration had not limited the instruction or activities offered in 77 percent of the projects. In the projects where integration had limited the program (23%), the primary limitations involved: the selection of activities limited by the schedule or by time (33%), religious topics which could not be taught in school (29%), a competition for teacher time or competition with other programs (15%), only one cultural class allowed at each school (12%), and cultural programs that could provide instruction only in school or district-related objectives (11%). However, most (97%) project coordinators indicated that the schools provided time to Indian students to attend cultural activities.

Indian community members (tribal/community leaders, parent committee members and parents), school administrators (district administrators and principals) and project directors and staffs were asked to rate their satisfaction with their local cultural programs. Nearly half of the district administratives (49%) and the principals (47%) were very satisfied and one-third (administrators 35%, principals 28%) moderately satisfied. Moreover, the principals indicated that the cultural instruction provided by their Part A projects was very (59%) or moderately (25%) valuable to Indian students. Indian community members' responses were similar. When asked how satisfied they were that their local projects were meeting the cultural needs of the Indian students, the majority (59% or more) of the tribal leaders, parent committee members and parents were slightly to very satisfied, and 40 percent of the leaders, 69 percent of the committee members, and 20 percent of parents were satisfied or very satisfied. The parent committee members were the most dissatisfied (17%), and the parents were least knowledgeable, 29 percent indicating they did not know.

District administratives and principals were asked whether the Indian students had special educational or culturally related needs addressed neither by their Part A projects nor other programs in their districts. While just under half (47%) of the district administrators reported there were some such needs not being addressed, most (83%) of the principals, who are generally closer to the students, did not feel this was the case. The views of the principals generally agree with those expressed by project directors, who indicated they were very satisfied (39%) or moderately satisfied (63%) that the cultural needs of Indian students were being met.

Types of Cultural Instruction and Activities

Detailed information was gathered from 72 of the 74 cultural projects to examine the types of cultural instruction and activities provided through cultural programs. Data from an Inventory of Instruction on Cultural Heritage were provided by the project staff from each of the cultural projects and provided the basis for this description.[2] The Inventory contained specific questions covering: (1) what was taught in eight major categories of instruction, which incorporated up to 27 major topic areas, (2) who served as the instructor in each area, and (3) how often was instruction provided in each area. The eight major categories of instruction are:

1. Creative arts and crafts;
2. Indian (tribal) history;
3. Indian (tribal) cultural heritage (e.g., moral and ethical values, knowledge and preparation of foods, hunting and fishing, traditional society, current and traditional beliefs and ceremonies);
4. Tribal governments, (e.g., tribal government's role and policies of federal government; current relationships with, and responsibility of, federal government; contemporary tribal issues; study of federal legislation; Indian tribal law);
5. Language preservation and development;
6. Indian literature, (e.g., stories, songs, music, legends, poetry);
7. Comparative cultural studies, (e.g., studies among and between tribes, contributions of Indians, famous Indians); and
8. Special events, (e.g., Indian awareness, Indian Clubs, field trips, Indian Day/Week).

Most (89%) of the cultural projects provided instruction in six or more of the eight categories and 31 percent offered topics from all eight. No project provided instruction in just one area.

As shown in Table 8-2, nearly all cultural projects provided instruction or activities in creative arts and crafts (98%), comparative cultural studies (94%), Indian cultural heritage (93%), and Indian literature (89%). Nearly all (93%) also offered special events. Most provided instruction in tribal history (82%)

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[2] The Inventory data were weighted to represent 530, or 61 percent of the universe of projects in the study sample, or 97 percent of the universe of projects reporting a cultural component.

and tribal government (71%), but only 40 percent provided instruction in Indian languages. A somewhat smaller proportion of cultural projects located on or near reservations offered instruction in Indian literature, Indian history, and tribal government than did projects located elsewhere. However, a higher proportion of cultural projects on or near reservations (45%) and in other rural areas (51%) offered Indian language instruction than did projects located in urban, non-metropolitan (34%) or metropolitan (25%) areas.

TABLE 8-2

TYPES OF CULTURAL INSTRUCTION BY PROJECT LOCATION
(Weighted N=530)*

Categories of Cultural Instruction	Total	On/Near Reservation	Rural	Urban	Metropolitan
Creative arts and crafts	98%	94%	100%	100%	100%
Comparative cultural studies	94	93	96	93	93
Special events	93	79	95	100	100
Indian (tribal) cultural heritage	93	85	95	93	100
Indian literature	89	77	95	84	100
Indian (tribal) history	82	69	92	73	93
Tribal governments	71	57	72	79	78
Language preservation	40	45	51	34	25

*The total number of cultural projects providing data was 72. The data have been weighted to make the findings representative of all cultural projects.

The findings concerning the method of presentation of cultural instruction, as presented in Table 8-3, show that almost all of the cultural projects provided some formal instruction in arts and crafts (95%) and comparative cultural studies (93%). For all categories of cultural instruction, formal teaching was used more often than informal discussion. Of course, in many projects the different topics within each category were both taught formally and discussed.

TABLE 8-3

PRESENTATION OF CULTURAL TOPICS*

Categories of Cultural Instruction	N***	Taught Formally	Discussed Only**
Creative arts and crafts	522	95%	5%
Comparative cultural studies	497	93	7
Indian (tribal) cultural heritage	494	86	14
Indian literature	474	75	25
Indian (tribal) history	437	71	29
Tribal governments	377	56	44
Language preservation	212	63	37

*Special events are not included.

**"Discussed" means the projects did not present the topics in a formal manner but provided information informally as the topic arose during classroom discussion

***The total number of cultural projects providing data was 72. The data have been weighted to make the findings representative of all cultural projects.

As shown in Table 8-4, special instructors/local resource persons were used in over four-fifths (85%, 35% alone and 50% in combination with project staff) of cultural projects providing instruction in arts and crafts and in well over half of the projects providing instruction in comparative cultural studies (62%), Indian cultural heritage (60%), and special events (62%). Use of project staff was greater than use of special instructors/local resource persons in all categories of instruction except arts and crafts. A substantial number (16-50%) of projects used both project staff and special instructors/local resource persons to provide cultural instruction in each of the eight categories. Thus, since special instructors/local resource persons were usually local Indian people, it appears the projects made significant use of Indian people as instructors for the cultural components.

TABLE 8-4

TYPES OF INSTRUCTORS USED IN CULTURAL INSTRUCTION

Categories of Cultural Instruction	N*	Special Instructors/ Local Resource Persons only	Project Staff Only	Both
Creative arts and crafts	522	35%	15%	50%
Comparative cultural studies	497	16	38	46
Special events	493	29	38	33
Indian (tribal) cultural heritage	494	23	40	37
Indian literature	474	30	49	20
Indian (tribal) history	437	22	62	16
Tribal governments	377	21	57	22
Language preservation	212	31	51	18

*The total number of cultural projects providing data was 72. The data have been weighted to make the findings representative of all cultural projects.

Projects provided instruction in different cultural topics with varying degrees of regularity. Projects were asked to indicate the frequency with which they taught or provided instruction for each topic or activity they listed. The responses, shown in Table 8-5, were grouped into three categories:

1. Least frequent - taught or provided once a year (or no more than four hours per year) up to several times a year.
2. Moderately frequent - taught or provided 9-40 hours per year, or one hour per month up to several hours per month, or no more than 1/2 hour per week.
3. Very frequent - taught or provided 40 or more hours per year, or at least 1 hour per week.

Of the categories of cultural instruction, Indian (tribal) history was the most commonly taught on a regular basis (57 percent of projects where topic was taught) followed by creative arts and crafts (47%). Not surprisingly, special events was the least frequently offered category of cultural instruction or activity. The overall mean frequency of instruction was moderate to very frequent for each category except special events.

TABLE 8-5

FREQUENCY OF CULTURAL TOPICS TAUGHT

Categories of Cultural Instruction	N*	Least Frequent	Moderately Frequent	Very Frequent	Mean**
Creative arts and crafts	522	29%	24%	47%	2.18
Comparative cultural studies	497	25	33	42	2.17
Special Events	493	59	25	16	1.57
Indian (tribal) cultural heritage	494	33	30	37	2.04
Indian literature	474	29	35	36	2.07
Indian (tribal) history	437	14	29	57	2.43
Tribal governments	377	36	26	38	2.02
Language preservation	212	27	31	42	2.13

*The total number of cultural projects providing data was 72. The data have been weighted to make the findings representative of all cultural projects.

**Rating Scale: 3 = Very frequent, 2 = Moderately frequent, 1 = Least frequent.

Key: Least frequent = once up to several times a year.
Moderately frequent = 9-40 hours per year, no more than 1/2 hour per week.
Very frequent = 40 or more hours per year, at least 1 hour per week.

The general satisfaction of Indian community members, school administrators and project staffs with project efforts in meeting student cultural needs was reported. Students were also asked to rate the importance of selected cultural topics. Table 8-6 presents their ratings broken down by students who were and were not involved with the project. Four of the six topics indicate a high degree of importance with a mean score of 4 or more at the elementary level. These topics (learning about Indians, going to places of special interest, doing things with other Indians in school, and using materials with Indian relevance) were also most important at the secondary level, although they were rated slightly lower. It is of interest that speaking the tribal language and having Indian teachers were rated less important by both groups.

Finally, Table 8-6 shows that these topics were almost as important to not involved students as to those who were involved. This tends to confirm the adult Indian community view of the importance of cultural instruction.

TABLE 8-6

STUDENT PERCEPTIONS OF THE IMPORTANCE OF SELECTED TOPICS BY GRADE LEVEL AND INVOLVEMENT IN PART A PROJECT ACTIVITIES*

	Very Important 5	4	3	2	. . . .Not Important 1	Mean
(1)Learning about Indians or your tribe in school.						
Grades 4-6						
Those involved	59%	17%	17%	4%	4%	4.2
Those not involved	45	18	22	7	8	3.9
Grades 7-12						
Those involved	37	25	27	7	4	3.8
Those not involved	28	28	29	11	3	3.6
(2)Speaking your Indian or tribal language.						
Grades 4-6						
Those involved	28	12	21	11	28	3.0
Those not involved	21	13	22	11	33	2.8
Grades 7-12						
Those involved	25	20	27	16	12	3.3
Those not involved	22	18	29	14	17	3.1
(3)Having teachers in school who are Indian.						
Grades 4-6						
Those involved	42	15	21	6	16	3.6
Those not involved	31	15	26	8	20	3.3
Grades 7-12						
Those involved	31	24	24	10	11	3.5
Those not involved	24	23	26	14	12	3.3

*The actual numbers of students who answered the questions were: Grades 4-6 - Those involved: N=2597, Those not involved: N=746; Grades 7-12 - Those involved: N=3098, Those not involved: N=196.

TABLE 8-6 (cont.)

	Very Important 5	4	3	2	. Not Important 1	Mean
(4) Going to places and events special to Indians or your tribe.						
Grades 4-6						
Those involved	57%	18%	15%	4%	6%	4.2
Those not involved	46	19	19	6	10	3.5
Grades 7-12						
Those involved	45	25	19	7	4	3.9
Those not involved	33	31	24	6	6	3.7
(5) Doing special things with other Indians in school.						
Grades 4-6						
Those involved	48	22	17	6	7	4.0
Those not involved	36	19	23	8	14	3.5
Grades 7-12						
Those involved	37	26	23	9	5	3.8
Those not involved	27	27	27	13	6	3.6
(6) Having materials/ books that tell about Indians or your tribe in your classes in school.						
Grades 4-6						
Those involved	50	19	18	6	7	4.0
Those not involved	40	20	21	8	11	3.7
Grades 7-12						
Those involved	36	25	24	10	5	3.8
Those not involved	28	23	29	12	8	3.6

Impacts of Cultural Programs on the School District and Indian Community

The impacts and influences of cultural programs on school districts were assessed from two perspectives: whether specific activities started by Part A cultural projects had become a regular part of the school program, and whether the school curriculum materials or other relevant items had changed.

Earlier in the chapter it was reported that 57 percent of the school districts considered the cultural program part of the overall school program. In addition in nearly half (47%) of the school districts with a Part A cultural program, special cultural events, topics, or activities initiated by the Part A project had become a regular part of the school program. The most frequently mentioned were: Indian Day or Indian Cultural Week (18%), arts and crafts (18%), guest speakers and special presentations (17%), Indian history (17%), and Indian language (8%). School districts on or near reservations (68%) or in metropolitan areas (50%) were more likely to incorporate special cultural activities into the regular school program than were districts in rural (36%) or urban, non-metropolitan (34%) areas.

In districts with cultural programs which did not incorporate special cultural activities into the regular school program (53%), the reasons cited were: cultural activities would be integrated if Part A funding ended (17%), the school district was not interested (16%), the school district had not been approached about such activities (12%), non-Indian students could not participate (11%), and lack of funding (9%).

According to staff responses, in 44 percent of the districts with cultural projects, school curriculum revisions had been influenced by the cultural programs. By the districts reporting revisions, named were: Indian history classes added (27%), cultural activities added to the curriculum (22%), more time spent on Indian history and culture (15%), arts and crafts classes added (13%), parent committee or other Indians consulted for recommendations (11%), and greater awareness/sensitivity/interest in Indian culture (9%). In over half (56%) of the districts with cultural programs, it was reported that the school curriculum had not been influenced because: cultural instruction was a low priority and was not needed (30%); cultural instruction was just gaining acceptance (18%), the project was hampered by a lack of funds (12%), it was hard to make an impact upon the state approved curriculum (7%), and there was a lack of professional staff and a formal curriculum (5%).

This information was corroborated by the responses of regular classroom teachers. Nearly half (46%) of the teachers reported that they had made changes in their curriculum and classroom materials to better reflect Indian history and cultural heritage. Of the changes that were made, the most frequent were: a greater emphasis on the place of American Indians in American history and culture (36%), the provision of some or more instruction on Indian culture, language, and Indian place names (21%). These findings are also similar to those reported by parent committee chairpersons, where 64 percent of whom felt there had been changes over the past three years in what was taught about Indians in the regular classroom. When chairpersons who reported that there had been changes were asked about specific impacts, the chairpersons reported some or a lot of changes in resource materials (62%), increased discussions on current affairs (55%), and increased discussion of Indian history (52%).

The school district administrators were asked a similar question. They were asked whether the Part A projects had led to: (1) curriculum revisions that reflect greater accuracy and sensitivity to Indian cultural and history, and (2) textbook adoptions that reflect greater accuracy and sensitivity to Indian culture and history. Over half (58%) of the district administratives reported that there had been curriculum revisions, and 40 percent reported textbook adoptions. Asked to comment on their responses, 69 percent (of those who commented) reported: more materials (books, etc.) concerning Indian culture were available in the classroom and/or library (29%), a more culturally relevant program had been developed, e.g., more content on, and sensitivity to, Indian culture and heritage (30%), teachers and other staff were now more involved in the selection of curriculum materials (14%); and the staff showed a greater awareness of, and sensitivity to, Indian heritage, history, and culture (10%).

It is important to note that while all sources indicated significant positive changes had occurred, this was reported by more parents and administrators than any other group. This is likely due to perspective and project connection:

parents and administration were reporting on the project as a whole, whereas the staffs' and teachers' concerns lie with the day-to-day administration and classroom level developments.

Impacts of the Cultural Program on Indian Students as Reported by Others

A variety of respondents, including school administrators and principals, project staffs, Indian tribal/community leaders, and parent committee members, were asked about the impact of the cultural program on Indian students. Over three-fourths of both the school administrators (81%) and school principals (79%) surveyed in the cultural projects responded that cultural instruction and activities had increased Indian students' appreciation of their culture and way of life. Project staff and parent committee members reported that their projects' cultural programs had been moderately to very successful, with the greatest success in: making schools a better place for students (over two-thirds of each group), enhancing pride and respect for Indians and their culture (almost three-quarters of each group), and helping Indian students improve school performance (almost three-quarters of each group). Of the two, project staffs consistently rated the projects' success somewhat greater.

Project staff members also rated the extent to which the projects had helped students in three specific cultural areas (see Table 8-7). Over 80 percent indicated that the projects had been of moderate to a great deal of help in increasing Indian student knowledge of Indian culture and arts and crafts. On the other hand, 70 percent reported that Indian students were helped little or not at all in learning to speak Indian languages, a reflection of the fact that only 40 percent of the projects provided instruction in this area.

Furthermore, when asked to list the accomplishments of Indian students involved in the cultural programs, Indian tribal/community leaders gave as their most frequent responses: students learned more or became more knowledgeable about

TABLE 8-7

HOW MUCH PROJECT HELPED INDIAN STUDENTS IN THREE CULTURALLY RELATED AREAS AS REPORTED BY PROJECT STAFF
(Weighted N=1588)*

Culturally Related Areas	A Great Deal	Moderately	Little	Not at All	Did Not Answer
Increased student knowledge of Indian culture and history	44%	39%	10%	2%	5%
Improved student Indian language skills	8	9	21	49	14
Improved student Indian crafts and related skills	51	30	10	3	6

*The total number of respondents was 268 from 74 projects. The data were weighted to make the findings statistically representative of all projects.

their culture, heritage, history, etc. (31%), students learned arts and crafts and learned the uses and the meaning related to the things they make and do (30%), students have developed pride in themselves (27%), and students have made cultural presentations, demonstrations, and displays for other groups (19%).

Of the parent committee members surveyed, 83 percent indicated that the local cultural program had helped Indian students. Moreover, 78 percent credited specific skills or gains, most frequently: students have learned about their own culture and history, or about those of other Indians (53%), students have developed more pride in themselves and their culture (27%), students have learned more about Indian arts and crafts (25%).

Overall, a majority of all sources reported that the cultural component of the Part A projects had had a significant positive impact on Indian students: over two-thirds of those questioned indicated it had increased students' appreciation of Indian culture and way of life, increased pride and respect in Indian culture, and improved Indian students' academic performance.

Impacts of the Cultural Program as Reported by Indian Students

Sixty-seven percent, or 8,459, of all the Indian and Native students surveyed in the spring of 1982 attended school districts with Part A projects operating cultural components. The spring Student Survey Questionnaire contained two parts with items bearing on the local cultural program. The first of these asked students to rate the importance of a series of cultural topics; it represents an assessment of student interest in these cultural topics and activities and was discussed earlier.

A second set of questions asked students how much they had learned about a number of cultural topics. Only students involved in the local Part A cultural programs completed this part. The results for elementary students, presented in Table 8-8, show that two-thirds or more students felt that they had learned some to a great deal in each of the fifteen topic areas listed. Indeed, the overall mean rating for elementary students was 3.5 on a scale of 1 to 5. While a majority of secondary students felt they had learned some to a great deal about the sixteen topic areas they were asked to rate (see Table 8-9), they generally rated their learning lower with an overall mean of 2.9, although still indicating they learned something about these topic areas. As such, a majority of all students in cultural programs felt they had learned some about a wide variety of topics concerning Indian history, culture, and heritage with elementary students indicating more often than secondary students that they had learned a great deal.

Students were asked another set of questions to determine how much the Part A staffs and project activities had helped them. Again, only students involved in projects completed this part of the questionnaire. As indicated in Table 8-10, the scores tended to be at the high end of the scale. Also scored were student ratings of Indian events (3.2/3.1), visits to Indian historical places (3.2/3.0) and Indian tribal games, etc., (3.2/3.0) and these scores were used in tabulating overall mean scores by project setting as depicted in Table 8-11.

These scores indicate that students felt that project staffs and activities had helped them more than some, the midpoint of the scale. Indeed, the overall mean scores at the elementary level were generally closer to a 4 rating. On this

TABLE 8-8

HOW MUCH ELEMENTARY STUDENTS IN GRADES 4-6 LEARNED IN THE CULTURAL PROGRAMS

(N=2546)

Cultural Topics	Learned a Great Deal		Some		Did Not Learn Anything	Mean*
1. Indian history	40%	14%	29%	7%	11%	3.7
2. Indian arts and crafts	56	14	21	4	6	4.1
3. Indian people of today	34	15	30	8	13	3.5
4. Indian stories	39	15	29	7	10	3.7
5. Indian people of the past	37	14	30	8	12	3.6
6. Indian music	34	11	28	9	18	3.3
7. Indian dances	38	12	27	8	16	3.5
8. Uses of animals, fish and birds	36	14	27	8	16	3.5
9. Indian foods	39	14	28	7	13	3.6
10. Uses of plants	25	12	32	9	22	3.1
11. Indian language	33	11	27	7	13	3.3
12. Indian clothing and its decoration	40	14	29	6	12	3.6
13. The Indian family	41	13	31	6	10	3.7
14. The giving of names and their importance	30	16	34	8	12	3.4
15. How Indian children were educated	33	17	29	8	13	3.5
					OVERALL MEAN	3.5

*The same response format was used for these 15 items: A five-point Likert scale from 1 = Did not learn anything to 5 = Learned a great deal.

TABLE 8-9

HOW MUCH SECONDARY STUDENTS IN GRADES 7-12 LEARNED IN THE CULTURAL PROGRAMS (N=2830)

Cultural Topics	Learned a Great Deal		Some		Did Not Learn Anything	Mean*
1. Indian history	17%	17%	39%	12%	15%	3.1
2. Indian arts & crafts	33	20	26	9	11	3.6
3. Indian people of today	15	18	40	12	14	3.1
4. Indian stories	17	16	31	15	21	2.9
5. Indian people of the past	22	18	33	12	16	3.2
6. Indian music & dance	18	15	29	14	24	2.9
7. Special ceremonies	13	14	29	17	27	2.7
8. Use of animals, fish, and birds	14	15	31	15	26	2.8
9. Preparation and customs relating to food	14	17	33	16	20	2.9
10. Indian humor	10	13	29	18	29	2.6
11. Indian language	13	12	26	18	31	2.6
12. Indian contributions to the development of America	12	18	36	17	17	2.9
13. Indian treaties	11	16	35	17	22	2.8
14. Indian values and beliefs	16	19	35	14	16	3.0
15. Issues facing Indians today	16	19	35	13	16	3.1
16. Use of plants as food and medicine	12	14	27	17	29	2.6
					OVERALL MEAN	2.9

*The same response format was used for these sixteen items: A five-point Likert scale from 1 = Did not learn anything to 5 = Learned a great deal.

TABLE 8-10

RATINGS OF HOW MUCH PROJECT STAFF AND ACTIVITIES HELPED STUDENTS IN SELECTED AREAS BY GRADE LEVEL

(Elementary Students, N=2570)*
(Secondary Students, N=2885)*

Extent To Which the Part A Projects Helped Students to:	Helped a great deal	. . . . .	Some	. . . . .	Did not help at all	Mean
1. Do and study things interesting to them						
Grades 4-6	44%	15%	31%	4%	6%	3.8
Grades 7-12	19	23	40	12	7	3.4
2. Enjoy attending school						
Grades 4-6	39	14	32	5	10	3.7
Grades 7-12	21	22	38	11	9	3.4
3. Enjoy talking about what they have learned with their parents or others at home						
Grades 4-6	39	14	31	7	9	3.7
Grades 7-12	18	20	37	13	12	3.2
4. Feel that school teaches things important to Indians like themselves						
Grades 4-6	35	17	34	7	8	3.6
Grades 7-12	16	19	40	14	11	3.2

*Student data were not weighted; thus, the reported Ns are actual numbers of students from whom data were collected.

TABLE 8-10 (Cont.)

Extent To Which the Part A Projects Helped Students to:	Helped a great deal	. . . . .	Some	. . . . .	Did not help at all	Mean
5. Know about the kinds of jobs that Indians do today						
Grades 4-6	33%	15%	32%	8%	13%	3.5
Grades 7-12	17	19	39	13	12	3.2
6. See Indian adults doing important jobs						
Grades 4-6	40	16	27	7	10	3.7
Grades 7-12	21	21	35	11	12	3.3

TABLE 8-11

MEAN SCORES REGARDING THE HELPFULNESS TO STUDENTS OF THE CULTURAL PROGRAM BY PROJECT SETTING

Setting	Overall Mean For Elementary Students (N=2570)*	Overall Mean For Secondary Students (N=2885)*
On/near reservation	3.63	3.30
Rural	3.37	3.12
Urban	3.55	2.96
Metropolitan	3.55	3.20

*Student data were not weighted; thus, the reported Ns are actual numbers of students from whom data were collected.

scale, the high school students' overall mean scores were a bit higher than their ratings of what they learned (Table 8-8). Since the high school student ratings tended to cluster around the midpoint (3) of the scale, this greater selection of higher ratings suggests they felt the projects had had a positive effect on them.

In summary, the students generally rated the projects' cultural efforts positively, with at least a majority indicating they had either learned some or been helped some. High school ratings, while lower than elementary school ratings, were also positive. Furthermore, Indian arts and crafts, the area most often expressed as a need by the Indian community, was the most positively rated activity. Since it was also the most frequent project activity, there appears to be substantial consensus on its merit as an area of positive learning.

Summary

Nearly two-thirds (64%) of the Part A projects had a cultural program, and the proportion of cultural programs increased with project distance from reservations. This appears to reflect a project effort to compensate for distance from the reservations through greater emphasis on culture. The primary goals of cultural programs were to increase cultural awareness, to develop and improve student self-esteem as Indians, to increase students' value and respect for Indian cultural heritage, and to pass on the tribal culture. Most (over three-fourths) tribal leaders and members experienced strong support for cultural programs, and specific instruction regarding Indian history and heritage enjoyed broad support among most (two thirds or more) school administrators and leaders.

Typical cultural programs provided instruction for 2.5 hours per week for 28 weeks of the school year. Nearly all (96%) cultural projects served students from more than one tribe, and almost all (92%) taught single and multitribal topics. Virtually all used local Indian people in their cultural programs as instructors and advisors. The cultural program was considered part of the overall school program in over half (57%) of the school districts with such programs, but in over one-third (43%) it was not. This later group was comprised primarily of larger projects with lower densities of Indian children, making integration into the overall school program somewhat difficult.

Neary all cultural programs provided instruction in creative arts and crafts (98%), comparative cultural studies (94%), Indian cultural heritage (93%), and Indian heritage (89%). Nearly all (82%) offered special events, and most provided instruction in tribal history (82%) and tribal government (71%). Only a minority (40%) provided instruction in Indian languages. A majority of projects provided formal instruction in each of these areas except Indian languages. Project staffs were used by a majority of projects to provide instruction; however, a large proportion of projects also used members of the local Indian community as instructors, especially in creative arts and crafts and in instruction of Indian cultural heritage and comparative cultural studies. Indian history, creative arts and crafts, and comparative cultural studies were the areas most frequently taught.

Most (77%) projects offered the cultural program during the school day using school facilities, although an almost equal percentage (74%) also offered after school programs. Most also indicated they had sufficient materials to carry out their efforts.

In nearly half (47%) of the school districts with Part A-supported cultural programs, special cultural courses, topics, or activities started by the Part A project had been adopted as part of the regular school program. In 44 percent of the school districts, school curricula revisions, such as the addition of Indian history classes, more time devoted to Indian history, and more arts and crafts classes, had occurred as a result of the cultural programs. Nearly half (46%) of the teachers reported making changes in their curricula to better reflect Indian history and cultural heritage.

The most frequently expressed needs of students, parents, leaders, and staffs were Indian history and arts and crafts. They were also the most frequently taught subjects and the subjects where students indicated they had learned the most. Two-thirds or more of school administrators, project staff members, Indian community/tribal leaders, and parent committee members felt cultural programs had been successful or had increased Indian students' knowledge and appreciation of their culture and way of life, increased their pride and respect for culture, and helped students improve their academic performance. This view was shared by the students, as a majority rated the projects' cultural efforts positively, indicating they had learned some or had been helped some in specific areas. Again, the highest rated area was arts and crafts. However, in all areas, the elementary students' ratings were higher than those of high school students.

The weight of these data suggests that the cultural program is responding to the needs and desires expressed by the Indian community. It appears that the cultural program, in addition to assisting students in a variety of ways, is generally responsive to the Indian community.

CHAPTER 9: STUDENT ATTITUDES TOWARD SCHOOL, THEMSELVES, AND THE INDIAN CULTURE

This chapter focuses on student attitudes toward school, themselves, and Indian culture. As earlier discussed, 54 percent of the Part A projects directors cited developing positive student self-concepts as either a primary or secondary objective of their project, and 92 percent indicated increasing student pride in their own ethnic heritage was an objective of their project. Indeed, these were the primary or secondary project objectives cited most frequently by project directors. (see Table 5-5).

To investigate both appropriateness of these objectives and impacts of the Part A Program may have had in these areas, data were gathered from a large sample (9,920) of Indian students in the fall and spring of the 1981-82 school year. The results of various analyses of those data are presented in this chapter, following a brief background discussion of prior studies relating to the self-concept of Indian students and the relationship between attitudes and performance in school.[1]

Studies Relating to the Self-Concepts of Indian Students[2]

In the past 30 years, self-concept theory and measurement have received considerable attention (witness the extensive literature reviews of Wylie, 1961, and Gecas, 1963). Not surprisingly, several authors have conducted studies dealing with the self-concept in relation to Indian students. These studies have focused on a variety of areas and used several measurement approaches. As a result, their findings are not always comparable or consistent. Some of these problems can be attributed to the fact that there is no consensus on how self-concept as a contruct should be defined. Some writers have attempted to distinguish terms such as self-concept, self-esteem, and self-acceptance. But these terms, as Wylie (1961) noted, are "so intertwined and overlapping in the literature" that it is not meaningful to distinguish among them.

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[1] This chapter is structured differently from others in the report. It was felt that the whole area of attitude measurement - why and how the study did it - was far too complex and important to be only briefly summarized. Thus, the opening sections of the chapter deal with these questions at some length before the data are presented and analyzed.

[2] Adapted from Goldsamt and Hipps (1980).

Several past studies have considered how the self-concepts of Indian students compare to those of students from other backgrounds. These comparisons have been made in two ways. First, some studies have tested students from both Indian and other cultural backgrounds and compared the results (Abdel-Mawgood & Hatch, 1973; Havighurst, 1970; Howell, 1978; Heaps & Morrill, 1979; Martin, 1978; Withycombe, 1970; Martig and DeBlassie, 1973). The second approach has involved comparing the mean scores from Indian children on some standardized measure with the measure's norms (Senior, 1973; Gardner, 1972; Corrigan, 1970; Lefley, 1975).

Overall, the results from these studies of the self-concepts of Indian children provide only mixed support for the proposition that Indian students differ from other students. In some studies, the Indian students were found to have less favorable self-concepts than either the white students also involved in the study or the norms established for the self-concept/self-esteem measure being used (Abdel-Mawgood & Hatch, 1973; Corrigan, 1970; Gardner, 1972; Senior, 1973). Other researchers, however, have found little evidence that Indian students have more negative self-concepts than other students.

In a study of Paiute and white elementary students, Withycombe (1970) found race was unrelated to student scores of self-concept and social status. Havighurst (1970), in the National Study of American Indian Education, noted that Indians have about the same level of self-regard as non-Indians at the same socioeconomic level. This finding is consistent with data from the later Abdel-Mawgood and Hatch 1973 study, which reported that family income and self-concept were strongly correlated.

Heaps and Morrill (1979) report results that are typical of a third group of studies. The results provide evidence that, for some students or in some areas of self-perception, no differences exist between white and Indian students, while such differences exist in other areas. Using the Tennessee Self-Concept Scale, Heaps and Morrill found no significant differences between Navajo and white high school students on overall self-esteem. Likewise, these students did not differ on five subscales relating to perceptions of their own behaviors: self-satisfaction, personal worth, value as a family member, and physical self. At the same time, though, Indians were significantly below whites on scales addressing their personal identities, moral-ethical selves, and social selves. They were also more defensive in social settings.

In an extensive review of the literature on Indian self-image, Trimble (1983) concluded that "most of the research [found] that American Indian populations had negative self-images or personality structures and that [the] situation would not change in the future" (p. 9). However, Trimble also found studies claiming that certain sampled Indian youth perceived themselves no differently than did any other population of American youth. Some Indian youth did perceive themselves negatively, as some studies had claimed, but to no greater extent than one would expect to find in any population.

To gain further insight into the apparent discrepancies in the literature on self-image of Indians, Trimble surveyed some 700 American Indians from five separate communities. He concluded that "the results of the self-perception portion of the survey show that the average American Indian does not think negatively about him or herself. Contrary to popular opinion and to the findings of many researchers, the American Indian self-image is moderately positive [and] suggest that [they] perceive themselves as no less worthy than does any other group in the United States" (p. 25).

Some studies have also found that the relationship between race and self-concept is a function of a student's age or grade level. However, these same patterns are inconsistent across studies. Martin (1978) reported self-esteem data from Indian and white students in Oklahoma. Using the Coopersmith Self-Esteem Scale, he found no differences in self-esteem among fourth graders in his samples. However, at the eighth and twelfth grade levels, Indian students scored significantly below whites on self-esteem.

The interaction of race and grade/age in relationship to self-esteem that Martin reported is consistent with data from other studies which have shown that Indian students in earlier grades have more positive views of self than their older classmates.

Indian Student Self-Concept and Education

For the past few decades, educators and behavioral scientists alike have presumed a linkage between educational success and achievement, and self-perception. However, not all of the data obtained support the assumed relationship. Representing one position, Purkey (1970) maintains that the "body of contemporary research points insistently to the relationship between self-esteem and academic achievement, [and] the self-concept can no longer be ignored by parents and teachers" (pp. 5-6). At the other end of the issue, sociologist Morris Rosenberg (1979) argues that "how well one does in an academic area has more to do with what he feels his ability is in that subject area as opposed to how he feels about his overall self" (p. 7). Echoing the same position, Filts (1972) adds "when the target population scores low on both self-concept and achievement measures it is tempting to infer a relationship between the two, but such inferences are dangerous and unwarranted. Many other factors ... may affect the self-concept, achievement or both" (p. 25).

In pointing out the rationale for and value of the Indian Education Act of 1972, researchers, congressional representatives, and certain resource persons emphasized the importance of the relationship between self-image and educational acheivement among Indian youth. The rationale was not without substance. Many people from surveyed Indian communities provided testimony to the effect that Indian youth did not perceive themselves positively. However, these points of view are not fully supported by the literature, as mentioned earlier.

In spite of the presence of more positively oriented research findings, many local school districts have maintained that Indian education programs needed to focus on improving the apparent negative self-perceptions of Indian children. Furthermore, many school administrations have continued to claim that improving self-image is a goal closely related to that of increasing school performance. In fact, poor student attitudes toward school, toward themselves, and toward their native cultures are frequently cited as causes for low educational attainment of Indian students, their high rate of school dropout, and their low college enrollment and graduation rates. These poor attitudes, in turn, are usually seen as the result of deficiencies in the ways the nation's school systems educate Indian students.

Because of the presumed association between poor student attitudes and low attainment, and between poor attitudes and the school system, a majority of Part A projects provide activities or services which have as their goal the improvement of these student attitudes. However, since attitudes tend to be formed on the basis of a variety of different factors, most Part A projects address this problem through a number of different activities and services. In the present study, 94 percent of all projects responding had either a primary or secondary objective associated with improvement of Indian students' self-concept. This was also one of the two most frequently mentioned primary goals of cultural instruction among the 64 percent of projects with a cultural instruction component. In addition, 92 percent of all projects surveyed were striving to improve students' pride in their ethnic heritage, 86 percent Indian students' knowledge and awareness of their history and culture, 86 percent students' attitude toward school, and 40 percent students' knowledge and use of Indian/Native languages. Projects frequently cited the improvement of student attitudes as an objective of their cultural activities, their guidance/career counseling services, their home-school liaison activities, and, in some cases, their academic/tutorial services.

In view of the importance attributed to and effort expended on the improvement of student attitudes by local projects, the present study gave particular attention to the suitability of assessing these attitudes and changes therein. Often, project activities directed toward these outcomes are quite intensive, although others are diffuse or indirect.[3] In some projects, the effects of previous years' efforts may have been great enough to minimize the chances of successfully measuring shifts or additional project effects within the single year of this study. Then, too, attitudes are considered extremely difficult to change over a relatively short time frame such as a single school year (Aronson, 1972, cited in Severy, 1974). Overall, however, the stated objectives and the nature of the activities in many projects made it quite proper to assess the level of student attitudes, whether their attitudes had improved during the school year, and whether they were associated with project exposure.

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[3] Examples of such activities include: providing classes, field trips, or group presentations in the area of Indian culture and history; providing role models through special teachers, tutors, or other Indian staff; and providing intensive counseling in academic and vocational areas.

Overview

This chapter summarizes the findings obtained from measuring Indian student attitudes. Specifically, data were collected from over 12,000 American Indian and Alaska Native students in the fourth through twelfth grades in the fall or spring of the 1981-82 school year. As such, it represents the largest study of Indian student attitudes to date, being much more comprehensive than the National Study of American Indian Education which was based on 2,422 students and other data sources (Havighurst, 1970). The data for the present study were analyzed for each period separately, and then across time periods and dimensions. The items and scales were administered twice to determine if students' mean attitude scale ratings shifted over the school year, and were asociated with participation in project activities. Table 9-1 indicates the number of students who supplied attitudinal information in the fall and/or spring.

TABLE 9-1

NUMBERS OF STUDENTS SUPPLYING ATTITUDINAL INFORMATION BY TYPE AND GRADE RANGE

Type of Information	Number of Students by Grade Range 4-6	7-12	Totals
Student questionnaires - fall	5,328	8,149	13,477
Student questionnaires - spring	5,173	7,366	12,539
Both fall and spring	4,255	5,665	9,920

Attitude Scale Development Activities

The development of the attitude scales began with the preparation of a literature review on the instrument selection, measurement, and conceptual issues involved in assessing Indian students' self-concept (Goldsamt and Hipps, 1980). Attitude scale items were then selected or adapted to fit specific relevant dimensions of interest. These attitudinal dimensions included: self-esteem, attitude toward school, academic self-concept, and ethnic pride and identification. The source of relevant and sound items was an issue in that the conflicting findings on Indian student self-regard may have been due to the heterogeneous nature of these studies, which represent differing tribes having differing cultural values and behavioral norms.

It was thus extremely important to consider the appropriateness of any test instrument. Several instruments have been used with Indian students to measure their level of self-regard; of these, the Tennessee Self-Concept Scale and Coopersmith Self-Esteem Inventory have been most widely used. However, as several writers have noted, "standardized" measures such as the Coopersmith and the Piers-Harris Scale were validated and normed with non-Indian populations. Hence their underlying assumptions about the components of self-esteem or self-concept may not be valid for Indian students.

Cress (1974) tested Oglala Sioux adolescents to validate the use of the Coopersmith Self-Esteem Inventory based on obtained relationships between self-esteem scores: behavioral estimates of self-esteem, peer popularity, and academic achievement. However, the predicted relationships were not obtained, suggesting that the measure did not provide a valid indicator of self-esteem among adolescents from this Indian group. According to Cress, the Self-Esteem Inventory is based on white, middle-class values (competition, achievement, material prosperity, peer popularity, and academic success), not shared by the Sioux culture, which emphasizes bravery, generosity, and individual autonomy. Such value conflicts were also noted by Lefley (1975), who used the Coopersmith Behavior Rating Form in her study of Miccosukee children and found that the Form's indicators of low self-esteem are approved behaviors in Miccosukee culture.

Although these issues have been raised most directly in relationship to Coopersmith's Inventory of self-esteem, they are applicable to other measures of self-regard, since a number of self-theorists have given little attention to how cultural values influence self-concept, or how varying cultural norms affect self-concept. Indeed, the Cress (1974) and Lefley (1975) studies discussed above suggest that Anglo and Indian cultures vary in their perceptions of positive self-regard.

Items concerning the academic self-concept domain used in the study were selected with great care. They came from Abdel-Mawgood and Hatch (1972) and reflected the work of Brookover. Measures of global self-esteem came from the widely used work of Morris Rosenberg (Rosenberg and Simmons, 1972; Rosenberg, 1965). Other attitude toward school and self-concept items came from a highly modified version of the Coopersmith Self-Esteem Inventory, adapted from the Pennsylvania Department of Education's educational quality assessment battery (1980; Kohr, 1982), and the self-perception scales prepared by Trimble (Trimble, 1977; 1983). Core study staff, together with a resource team, also prepared items to tap specific topics such as cultural identification and pride.

In addition to identifying items that measured specific dimensions or topic areas, the research team was also concerned with the cultural relevance of the items and age-grade levels of the respondents. Thus, after the items were identified, they were extensively reviewed for ambiguity, acquiescence, social desirability, response format, appropriateness of age level, and cultural relevance. Although the study team recognized the broad cultural differences existing among Indians and attempted to design scales which would minimize cultural bias as much as possible, sources of error imposed by semantics and cultural differences may still have been present.

During this development process, the items were reviewed by over 20 Indian educators, representing many tribes in various parts of the U.S., and including professors, local project directors, and teachers. Also solicited and used throughout the development of the instrument and student data collection procedures were the comments and suggestions of the members of the study Technical Advisory Panel. After refining, rewording, and eliminating dimensions and items, the scales were pretested on a small sample of elementary and secondary school Indian/Native students. Item analyses were performed to determine the response alternative distributional characteristics of items, scale internal consistency reliabilities, correlations among items and scales, and the factorial structure of dimensions and items.

TABLE 9-2

NUMBER OF ITEMS USED TO MEASURE ATTITUDINAL DIMENSIONS INCLUDED IN THE STUDENT QUESTIONNAIRE FALL AND SPRING VERSIONS (GRADES 4-6 AND 7-12)

Dimension Measured (no order intended)	Number of Itmes in the Grades 4-6 Form	Number of Items in the Grades 7-12 Form
1. Attitude toward school	9	9
2. Value of education	3	7
3. Academic self-concept	4	5
4. Global self-esteem	6	8
5. Self-derogation	2	2
6. Self-esteem	4	6
7. School fairness	---	2
8. Indian/Alaska Native identification with ethnic heritage*	7	10
9. Indian student preference for instructional settings**	5	8
TOTALS: 9 Dimensions	40 items	57 items

*A shorter version of this composite index appeared in fall student questionnaires.

**Not included in fall student questionnaires.

The final dimensions which were retained are presented in Table 9-2. For each dimension, composite scores were formed by adding individual item responses and dividing by the number of valid responses; the same items were used in both the fall and spring versions.

Two student questionnaires were developed with these dimensions. The grades 4-6 form is a scaled-down and adapted-when-necessary version of the grades 7-12 form. It measures the same subdimensions, and contains many of the same items, to permit cross-section trend comparisons of patterns of shift in these dimensions across upper elementary (4-6), middle (7-9) and high school (10-12) grade ranges.

To confirm the quality of the items and how well they measured the desired dimensions, the internal consistency reliabilities and factorial structure of each dimension were separately examined for the fall and spring data bases. By doing so, four items in each student questionnaire (grades 4-6 and 7-12) were excluded from further use, since they had inadequate psychometric properties. They either did not vary sufficiently or highly correlated with stronger indicators of particular dimensions.

Multivariate Analyses of the Student Questionnaire Items

In order to test further the scales which were developed, correlational and factor analyses were carried out. The results of these analyses, together with basic statistics that describe the characteristics of the scales, are presented below.

(a) Item factor analytic results

Item factor analyses were performed for both the fall and spring data sets for both grade ranges. Items from the spring versions of the elementary and secondary questionnaires were included in a factor analysis designed to produce a factor matrix with maximum generalizability. Principal components factoring followed by an orthogonal (varimax) rotation produced the final factor matrix. Only the results from the spring data set are reported here, because they are comparable to those found for the fall data and they include cultural identification items not included in the fall version of the questionnaire.

The elementary grade range questionnaire items produced six distinct factors that are described below:

- Attitude toward school: consisted of variables depicting some positive orientation to school, school activities, and teacher caring.

- Academic self-concept: included orientations of school-related performances and self-appraisal.
- Value of education: consisted of items that speak generally to the importance of education and learning.
- Self-esteem: consisted of personal assessments where respondents expressed opinions about themselves in reference to others.
- Self-derogation: consisted of variables having to do with some negative self-attribution.
- Cultural pride: consisted of items tapping some aspect of the Indian culture and pride about one's tribe.

The items that loaded on the six factors were quite consistent with the dimensions identified and established during the development of the questionnaire. In this vein, then, the factor analytic results verified and confirmed the decisions made concerning what items and scales to retain, and thereby established confidence in the scale reliabilities.

The spring version of the questionnaire contained a separate set of culturally related items. Initially, it was thought that these items would provide information concerning their perceived importance to respondents participating in local programs. However, a more detailed inspection led to the conclusion that they might form separate dimensions of their own and might also be correlated with other related items not originally included in the scale.

These items, together with other items measuring cultural pride, were analyzed by factor analytic methods. Three factor patterns were produced. Seven formed the dominant first factor and clustered around a theme dealing with identification and ethnic heritage. Five items loaded on an instructional dimension. Two other items formed a relatively weak third factor that emphasized an ethnic integration-segregation domain. The third was dropped from further consideration due to its measurement weakness, but the other two were added to the original six so that the elementary age group items tap a total of eight fundamental dimensions.

A factor analysis of the secondary grade range items yielded seven factors:

- Attitude toward school: contained items that appear to emphasize teacher behaviors, school activities, and a positive orientation toward school. The structure of this factor closely resembles the first factor in the elementary group data set.

- Cultural pride: consisted of items that emphasize pride in tribal affiliation, learning about Indians and one's tribe, and the importance with which one's tribe is held.

- Self-esteem: contained an orientation towards doing things well, self-satisfaction and positive attitudes, and having good qualities. It resembles the fourth factor of the elementary group factor analysis.

- Value of education: contained items that emphasize interest in classes and learning, doing well, staying in school, and the difference school makes in one's life. The factor resembles the four-item factor with the same theme in the elementary group data set.

- Academic self-concept: composed of items tapping some aspect of one's performance in school.

- School fairness: appeared to tap a school rules and school climate dimension.

- Self-derogation: composed of wanting more respect and feelings of uselessness. In content, it resembles the fifth factor in the elementary group data set.

Consistent with the conclusions drawn for the elementary group factor dimensions, the secondary group items also appear to follow the patterns identified and developed during the questionnaire development phase of the project. The factorial structures of the items lend credibility to the domain identified for assessment, and, therefore, substantiate the internal consistency and homogeneity of the items used as scales.

Based on the results yielded by the factor analyses, it was decided to form separate scales and use them in subsequent analyses. The nature of each scale for each age group appears to meet minimal criteria for scale construction. The factor loading for each item and scale exceed .30, and the intercorrelations between scales were low enough to suggest a minimum of overap between constructs measured by these scales. (See Tables 9-3 and 9-4 for these intercorrelations.)

An analysis of other cultural identification items was also performed on the grade 7-12 group data set. The analysis yielded three distinct factors, the third quite weak, and closely resembled those factors produced from comparable items in the elementary group. The two factors which were retained are:

- Identification with ethnic heritage: items load highest on this factor reflecting history of tribe and culture, learning about language and Indians, going to school with other Indians, and pride in tribal affiliation.
- Instruction: items loading highest on this factor deal with school activities in which Indians participate, including the kind of classroom and teachers used for instruction.

As indicated above, merging the two types (self and cultural) of factor analyses yielded nine distinct factors appearing in fall and spring instruments. The strength of the loadings on each of the factors led investigators to form separate scales based exclusively on the distinct patterns.

(b) Composite Scale Results

Items on each scale were then subjected to conventional analyses. Tables 9-3 and 9-4 present the intercorrelations of the attitude scales for the fall elementary and secondary group data sets, respectively. The fall time period was used to obtain "purer" (or less potentially affected by program participation) estimates of the intercorrelation between dimensions or composite scale scores. While the correlations between certain scales are moderately positive, most of the scales appear to be somewhat distinctive. That is, the intercorrelations are sufficiently low at each grade range. Somewhat different types of dimensions seem to exist and do not warrant, for example, pooling two or more scale scores to form some "composite" dimension.

Table 9-5 presents the intercorrelations of the fall composite with the corresponding spring score for those students who were administered both instruments. Standardized item alpha internal consistency reliabilities are also contained in Table 9-5 for the same dimensions so that two types of reliability estimates can be made for each scale. That is, the

TABLE 9-3

INTERCORRELATIONS[a] OF FALL ATTITUDE SCALES: GRADES 4-6 (N=4886)[b]

Dimension	1	2	3	4	5	6	7
1. Attitude toward school	(1.00)						
2. Value of education	.38	(1.00)					
3. Academic self-concept	.45	.24	(1.00)				
4. Global self-esteem[c]	.29	.20	.40	(1.00)			
5. Self-derogation[c]	.09	.05	.18	.59	(1.00)		
6. Self-esteem[c]	.31	.22	.39	.91	.20	(1.00)	
7. Cultural pride[d]	.13	.06	.09	.11	.01	.13	(1.00)

[a] Correlations greater than .02 are statistically significant at $p < .01$ with an N of 5000.

[b] Intercorrelations are based on students who had scores on all dimensions, so that relationships could be more readily compared.

[c] Correlations between global self-esteem, and self-derogation and self-esteem scales are high, because self-derogation and self-esteem are subscales of the global scale and contain the same items. The direction of negatively worded items, such as self-derogation items, has been reversed for scaling purposes; hence the positive correlation of polar concepts.

[d] Represents the initially conceptualized dimension and corresponding items.

Note: The value of (1.00) along the diagonal represents a correlation of a scale score with itself.

TABLE 9-4

INTERCORRELATIONS[a] OF FALL ATTITUDE SCALES: GRADES 7-12 (N=7547)

Dimension	1	2	3	4	5	6	7	8
1. Attitude toward school	(1.00)							
2. Value of education	.58	(1.00)						
3. Academic self-concept	.28	.38	(1.00)					
4. School fairness	.29	.33	.17	(1.00)				
5. Global self-esteem[b]	.24	.29	.47	.19	(1.00)			
6. Self-derogation[b]	-.07	-.03	.04	.10	.49	(1.00)		
7. Self-esteem[b]	.31	.35	.52	.17	.90	.08	(1.00)	
8. Cultural pride[c]	.08	.15	.07	-.07	.07	-.16	.16	(1.00)

[a] Correlations greater than .03 are significant at p.< .01 with an N of 7000. Intercorrelations are based on students who had scores on all dimensions, so that relationships could be more readily compared.

[b] Correlations between global self-esteem, and self-derogation and self-esteem scales are high, because self-derogation and self-esteem are subscales of the global scale and contain the same items. The direction of negatively worded items, such as self-derogation items, has been reversed for scaling purposes; hence the positive correlation of polar concepts.

[c] Represents the initially conceptualized dimension and corresponding items.

Note: The value of (1.00) along the diagonal represents a correlation of a scale score with itself.

TABLE 9-5

FALL-SPRING ATTITUDE SCALE RELIABILITIES AND INTERCORRELATIONS BY GRADE RANGE

	GRADES 4-6				GRADES 7-12			
Scale	N	Standard Alpha Reliab.[c]	Estimated Test-Retest Reliab.[d]	Fall-Spring (N=2981)	N	Standard Alpha Reliab.[c]	Estimated Test-Retest Reliab.[d]	Fall-Spring (N=4014)[a]
Attitude toward school	5,039	.72	.63	.48	7,853	.79	.70	.59
Value of education	5,235	.46	.37	.28	8,050	.76	.67	.60
Academic self-concept	5,172	.62	.53	.47	8,034	.73	.64	.67
School fairness	--	*	*	*	7,988	.64	.55	.42
Global self-esteem	5,218	.51	.42	.40	8,005	.68	.59	.54
Self-derogation	5,199	.51	.42	.29	7,937	.39	.30	.37
Self-esteem	5,161	.47	.38	.40	8,018	.76	.67	.53
Identification with ethnic heritage[b]	5,159	.75	.66	*	7,316	.83	.74	*
Cultural pride/instructional setting preferences[b]	5,140	.56	.47	*	7,271	.85	.76	*

[a] Intercorrelations are based on students having scores on all dimensions, so that relationships could be more readily compared. All intercorrelations in this table are statistically significant at $p < .01$.

[b] Represents the cultural dimensions developed from factor analyses and corresponding items.

[c] Standardized item alpha internal consistency reliabilities are reported for fall data for school and self-related scales, and for spring data for cultural identification/pride scales, which in their two-factor form, were not administered in the fall.

[d] Based on subtracting a correction factor of .09 from the alpha reliability, as recommended by Murray (1983).

*No items on this dimension administered to this grade or during that time of the school year.

fall-spring intercorrelations present an approximation of a stability or test-retest reliability coefficient. However, since the fall and spring data were gathered a number of months apart and at opposite ends of the school year, the intercorrelations are likely to be affected by any effects of Part A activities which may have, for example, shifted students' self-concepts and attitudes toward school. This shift is desirable, since it indicates program participation effects and impacts. Thus, for the Global Self-Esteem scale, the standardized item alpha reliability for students in grades 7-12 was .68, and the stability reliability coefficient was .54, indicating some tendency for this attitudinal dimension to be measured in a stable way over time. In other studies, Silber and Tippett (1965) obtained a test-retest correlation of .85 over a two-week period (although their sample size was 28). Reynolds (1982) found a coefficient alpha level of .85 using college undergraduate students, whereas McCarthy and Hoge (1982) obtained an alpha level of .74 among the seventh, ninth, and eleventh grade students. Trimble (1977) used a sample of 792 Indians and obtained global self-esteem test-retest coefficients ranging from .70 to .82.

In general, considering: (1) the earlier findings that items intended to tap a particular dimension actually did so (judging from the factor analysis results) and (2) the underlying issues which affect measurement of Indian students' perceptions of themselves and their school experiences, the level of internal consistency and stability found across these attitudinal scales is fairly respectable. However, they are lower than fully desirable (i.e., having alpha levels of .80 or above) and, therefore, the results must be treated with caution.

Elementary grade level reliabilities, particularly, tend to fall in this latter category. This is a matter experienced by other studies such as the Sustaining Effects Study of Title I children. In that study they administered the commercial instrument "Survey of School Attitudes" to 3,700 students across the grades 1 through 6 (Hemenway et al., 1978). Although internal consistency reliabilities for each grade were between .85 and .87, the corresponding fall-spring intercorrelations for each grade across the grades had a median value of .45, or slightly lower than the present study's test-retest levels of the grade 4-6 Attitude Toward School scale score. For grades 4-6, both studies had identical values of .48. Thus, these reliability levels may be reasonable, given the realities of assessing attitudes which are not yet stable in elementary school children.

The reliabilities at the grade 7-12 level are higher than for the grade 4-6 instrument, also reflecting the greater number of items used to measure virtually every dimension. However, given the fact that other studies have obtained higher reliabilities than the present one, findings based on some of the scales should be interpreted with caution, as was done here. Hence, greater emphasis has been placed on the relative levels of attitudinal scores than on whether or not they tended to reliably shift over the time span of a single school year.

Organization of Findings

Results in this chapter are presented at several levels. The percentages of Indian students who completed the items comprising each dimension are given for the elementary and secondary grade ranges for the fall and spring time periods. These analyses are presented for each time period separately (i.e., as cross-sectional comparisons) so that overall student attitudes at two distinct points in the school year can be examined. Group mean attitude scale scores are then presented, both overall and in terms of meaningful differences found when using particular program variables as cross-break factors. Finally, the relationship of attitudes to academic performance is presented.

Summary of Student Responses to Individual Items[4]

In general, the fall-spring attitude data from secondary school students appear to resemble those of the elementary school group. Both groups began the year with relatively positive ratings of themselves and school, and gave similarly positive ratings in the spring of the year. Because of their initial levels, the fall ratings left little room for improvement or positive change, and shifts in response patterns from fall to spring were minimal for both groups. This seems to suggest that school activities and experiences had no negative effect on attitudes expressed in the fall, but rather that Indian youth in the schools sampled had positive attitudes towards themselves, their culture and tribes, and their educational experiences.

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[4] To the extent possible, the wording of individual items used in the instruments has been retained in this chapter.

The results from the fall data collection for grades 4-6 indicate a fairly high percentage of positive responses for most items on the attitude scales. For example, 93 percent of the students agreed that their teachers cared about learning. Similarly, 92 percent felt that school helped a good deal in what they did in later life, and stated they wanted to be above average or among the best in school.

It appears that at the start of the year, the elementary school students held some strong opinions about themselves. Slightly more than three-fourths felt they did things well when they did them (76%), were proud of their school work (78%), were good at learning (77%), and they could do many things well in school (79%). About 80 percent liked themselves, were happy about who they were, and were very proud of their tribal heritage.

The elementary students did, however, express some mixed opinions about school. Thirty-five percent said that teachers did not care what Indian students thought, 31 percent felt that school rules were unfair to them, 36 percent found it hard to talk with teachers, and 29 percent found school a waste of time. About one-third were only marginally interested in their classes, and 61 percent would rather attend a school where there are mostly Indians.

The spring data from the elementary level group resulted in patterns comparable to that of the fall data set. A careful inspection revealed little variation or shifts in the response patterns. Overall, what shifts occurred appear to be a few percentage points toward the positive dimensions of the scales. While there were some slight shifts in the negative direction, these also amounted to only a few percentage points. Specifically, the shifts seem to tap some tendency for students to tire of school during the spring. A relatively few respondents, perhaps after experiencing a difficult year, shifted their opinions to indicate that school was not like a big family and that school rules were unfair to Indians.

The spring version of the elementary school level questionnaire contained an additional set of items intended to capture students' feelings about several educational matters. Responses to the items indicate that 72 percent felt that learning about Indians in school was important; the same percentage said visiting places special to Indians was important; 74 percent said doing special things with other Indians was important; and 68 percent said having Indian-related materials in the school was important. Two-thirds of the students also indicated they liked the idea of a special classroom for teaching and giving help to Indian students.

Fall responses obtained from the secondary school level students closely resembled the patterns generated by the elementary school youth, and reflect a moderately positive perspective toward school, self, and cultural areas. Concerning school-related matters, 81 percent of the students liked most of their teachers and 78 percent said there were interesting activities in school. Only 20 percent felt school rules were unfair to Indians, 79 percent said they felt good about going to their school, and 81 percent said that Indians in their school were not under too much pressure. However, 51 percent felt that the teachers did not care what Indian students thought.

Almost three-quarters (72%) of the students in grades 7-12 indicated they enjoyed school and were interested in classes. Eighty-five percent also felt that learning was important and that school could make a difference in one's life. In contrast, though, 70 percent expressed the opinion that the most important part of one's education came from real experience rather than school learning.

Like the elementary school sample, the 7-12 grade group felt strongly about education and the importance of learning. Eighty-nine percent felt that doing well in school would help later in life, and 75 percent wanted to be above average or among the best in school.

Of the 7-12th grade sample, 89 percent said they were proud to be members of their tribes, 84 percent of the students liked to learn new things about their tribes, and 69 percent would like their tribal languages taught in school.

However, there were mixed opinions about talking with others about their respective tribes; only 50 percent liked to tell other people about their tribes. About 58 percent of the students also would like to attend schools where there are mostly Indians, and 60 percent tend to become annoyed at the ways teachers and classmates sometimes talk about Indians.

In addition, as had the elementary school students at the start of the year, the secondary school students expressed rather positive feelings about themselves. Eighty-seven percent of the respondents felt that when they did something they did it well, and the same percentage said they were able to do things as well as others. Eighty-two percent said they were good at learning, and 85 percent said they were able to do many things well in school. On the whole, 82 percent were satisfied with themselves, and 83 percent said they held positive attitudes toward themselves. On the other hand, 72 percent said they wished they could have more respect for themselves, and 60 percent said they felt useless at times.

Inspection of the questionnaires completed by the secondary school students in the spring revealed response patterns that were very similar to the fall data set. Most of the item-level shifts toward either direction of the scales were minimal and involved only a percentage point or two. In the fall, for example, 12 percent expressed the desire to drop out of school, whereas in the spring this declined slightly to 11 percent, suggesting that the students' experiences in school were having no detrimental effect on student attitudes. Given that at least six months had transpired between the data collection periods, the spring results in general show quite consistent response patterns. Numerous school-specific activities might have caused some pronounced shifts in attitudes, but such was not the case. Thus, the spring results also support the findings that the students consider the educational experience worthwhile and valuable, and continue to perceive themselves in a positive manner.

Scale Score Differences Between Fall and Spring Data

Table 9-6 presents means and standard deviations derived from scoring the individual items. The columns of Table 9-6 show the descriptive statistics for both grade level groups and for both data collection periods. Of importance to the impact evaluation is the general finding that scale averages tend to be on the more positive end of the continuum (the lower the scores the more positive

TABLE 9-6
ATTITUDE SCALE AVERAGES*

Scale		Elementary		Secondary	
		Fall	Spring	Fall	Spring
		Mean S.D.	Mean S.D.	Mean S.D.	Mean S.D.
School Related Activities					
Attitude toward school		1.82(.47)	2.09(.56)	2.86(.65)	2.25(.51)
	N	5313	5165	7853	7336
Value of education		1.57(.60)	1.56(.58)	1.76(.54)	1.76(.52)
	N	5235	5107	8050	7324
Academic self-concept		2.08(.59)	2.09(.61)	2.26(.53)	2.27(.53)
	N	5172	5162	8034	7318
School fairness		**	**	1.99(.67)	2.00(.67)
				7988	7239
Self Related Attitudes					
Global self-esteem		1.47(.32)	1.47(.32)	2.14(.37)	2.13(.38)
	N	5218	5156	8005	7275
Self-derogation		1.42(.40)	1.41(.40)	2.76(.64)	2.74(.62)
	N	5199	5135	7937	7220
Self-esteem		1.49(.39)	1.50(.39)	1.93(.44)	1.92(.43)
	N	5161	5158	8018	7284
Culture Identification and Pride					
Identification with ethnic heritage		**	2.07(.80)		2.35(.84)
	N		5159		7316
Instructional		**	2.63(.91)		2.46(.87)
	N		5140		7271

*These means are scaled such that 1 is the positive end (high esteem) of the scale and 4 is the negative end (low esteem). For the identification and pride scales (scales 8 and 9) the range is expanded to 1 to 5 (scaled in the same direction), which is reflected in the greater mean values.

**Not administered during the fall, or part of that grade range instrument.

the perspective). Average values for the first seven scales range from 1.41 (spring, elementary: self-derogation) to 2.86 (fall, secondary: attitude toward school). Differences between average scale scores are rather small, ranging from no difference to a shift of .61.

Averages for the culture identification and pride scales are higher than those in other scales. In fact, these scales have five choice alternatives, one more than the other scales. Hence, while the culture and pride scale scores appear high, they are actually quite consistent with the patterns of the other scales.

It should be pointed out that fall scale averages for both grade ranges of students are moderately high. From fall to spring, any program-related shifts in mean values would have had little room to expand, since a score of 1 is the highest that could be expressed. (Obviously, mean shifts could have occurred towards the negative end.) Nonetheless, very slight shifts in mean values, coupled with the large samples, can produce significant shifts in a statistical (though not necessarily an educationally meaningful) sense.

Student Attitudes and Program Exposure

The discussion above deals with all Indian students as a group. However, the student attitude data were also examined in the context of exposure to the Part A Program. Tables 9-7 and 9-8 present the spring time period of attitude scale data for Part A participants, non-participants, and those whose participation status was unclear. The spring time period was used because it reflects a school-year of participation in Part A activities and can, therefore, be used to compare attitudes of non-participating students at the same point in time. Participation and non-participation were determined through responses to a set of questions on another section of the spring Student Questionnaire.[5] For the elementary grade group, about 25 percent of the respondents indicated they did not participate in

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[5] Students were asked if they participated in specific activities available through their local Part A projects, or were tutored, counseled, or otherwise assisted by Part A staff (names of specific staff were provided to the students). Response options were Yes, No, or Don't Know. There were also internal consistency checks in the questionnaire regarding participation. Students in the "unsure" category either responded Don't Know or failed a consistency check.

TABLE 9-7

GRADE 4-6 STUDENT ATTITUDES (SPRING SCORES) CONTRASTED FOR PARTICIPANTS AND NON-PARTICIPANTS IN PART A ACTIVITIES*

Scale		Part A Participants Mean (S.D.)	Part A Non-Participants Mean (S.D.)	Unsure Mean (S.D.)	Probability
School-Related Attitudes					
Attitude toward school		2.07(.56)	2.14(.55)	2.06(.51)	.001
	N	3590	1252	323	
Value of education		1.57(.59)	1.55(.58)	1.53(.53)	n.s.
	N	3549	1236	322	
Academic self-concept		2.09(.61)	2.10(.61)	2.05(.56)	n.s.
	N	3587	1252	323	
Self-Related Attitudes					
Global self-esteem		1.47(.32)	1.46(.31)	1.45(.32)	n.s.
	N	3580	1254	322	
Self-derogation mean		1.42(.40)	1.39(.40)	1.42(.41)	n.s.
	N	3565	1248	322	
Self-esteem mean		1.50(.39)	1.50(.39)	1.47(.40)	n.s.
	N	3582	1254	322	
Culture Identification					
Identification		1.99(.75)	2.30(.90)	2.07).78)	.001
	N	3582	1254	323	
Instructional		2.55(.88)	2.84(.95)	2.77(.89)	.001
	N	3577	1240	323	

*Represents the spring time period of attitude scale data for Part A participants, non-participants, and those whose participation status was uncertain.

Note: These means are scaled such that 1 is the positive end (high esteem) of the scale and 4 is the negative end (low esteem). For the identification and pride scales (scales 7 to 9) the range is expanded to 1 to 5 (scales in the same direction), which is reflected in the greater mean values.

TABLE 9-8

GRADE 7-12 STUDENT ATTITUDES (SPRING SCORES) CONTRASTED FOR PARTICIPANTS AND NON-PARTICIPANTS IN PART A ACTIVITIES*

Scale		Title IV Participants Mean (S.D.)	Title IV Non-Participants Mean (S.D.)	Unsure Mean (S.D.)	Probability
School-Related Attitudes					
Attitude toward school		2.22 (.52)	2.26 (.53)	2.30 (.50)	.001
	N	4594	327	2415	
Value of education		1.75 (.52)	1.80 (.57)	1.77 (.51)	n.s.
	N	4586	324	2414	
Academic self-concept		2.27 (.53)	2.34 (.52)	2.25 (.51)	.01
	N	4581	324	2413	
School fairness		2.01 (.69)	2.09 (.66)	1.96 (.63)	.001
	N	4540	319	2380	
Self-Related Attitudes					
Global self-esteem		2.13 (.38)	2.18 (.39)	2.12 (.36)	.03
	N	4548	323	2404	
Self-derogation		2.75 (.62)	2.78 (.64)	2.73 (.61)	n.s.
	N	4520	319	2381	
Self-esteem		1.92 (.44)	1.98 (.45)	1.92 (.41)	.05
	N	4556	323	2405	
Culture Identification					
Identification		2.26 (.79)	2.40 (.82)	2.50 (.89)	.001
	N	4588	325	2403	
Instructional		2.36 (.82)	2.53 (.86)	2.64 (.92)	.001
	N	4563	324	2384	

*Represents the spring wave attitude scale data for Part A participants, non-participants, and those whose participation status is uncertain.

Note: These means are scaled such that 1 is the most positive (high esteem) and 4 is the most negative (low esteem). For the identification and pride scales (scales 8 to 10) the range is expanded to 1 to 5 (scaled in the same direction), which is reflected in the greater mean values.

the school's program; for about 6 percent it was uncertain. For the 7-12 group, only 4 percent indicated they did not participate in Part A activities. However, for close to one-third it was uncertain whether they had participated.

An inspection of the spring scale means for both grade groups shows that those who participated in Part A programs had slightly more positive scores than non-participants. They held slightly more positive attitudes toward self, school, and the instructional process than did the others. The data for participants, non-participants, and those who were unsure were treated with a one-way analysis of variance technique to determine the significance of any differences among the groups. For the 4-6 grade group, differences on only three of the nine scale means were statistically significant, while six were not. These scales were attitude toward school and the two scales comprising the cultural identification dimension. However, these scales may reflect programmatic emphases during the year.

For the 7-12 grade group, differences on seven of the nine scale means were statistically significant. The value of education and self-derogation scales were the two that failed to yield significant differences. Since these data were from the spring data collection wave, it is conceivable that participation in project activities, coupled with school attendance, affected some student attitudes. That is, while the mean differences are quite small and generally tend to be positive, these data suggest that project participation may produce slightly more positive attitudes, especially for the 7-12 grade group. This necessarily has to be a tentative statement in view of scale reliabilities and various design considerations. However, the number of statistically significant findings is persuasive.

To further explore these data, mean differences from fall to spring were computed and treated with a one-way analysis of variance technique. Difference scores were obtained by subtracting each student's spring scores from the corresponding student's fall baseline values.[6] Thus, a positive difference indicates an improvement in attitude.

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[6] To compute these difference scores, the spring data bases were merged on the basis of individual student identification numbers placed on each questionnaire.

As shown in Tables 9-9 and 9-10, the change scores indicate that student attitudes declined slightly from fall to spring, rather than improved. For the 4-6 grade students, 12 of the 18 mean differences (when considering participant status) were negative. However, only the mean differences for attitude toward school were statistically significant. For the 7-12 grade group, about half (11 of 21) of the mean differences were also negative. For this group, only the attitude toward school and academic self-concept scales yielded significant mean differences across participation groups. For each of the three scales yielding significant mean differences among groups from fall to spring, the participant group showed a smaller decline in scores than did the non-participant group. In other words, on these three scales, the attitudes of Part A participants declined less than non-participants. Here, too, interpretation of this finding needs to be cautious in view of scale reliabilties and consequent regression toward the mean effects over time.

The negative mean differences shown on Tables 9-9 and 9-10 would appear to contradict the results presented in Tables 9-7 and 9-8. However, what may have occurred, and what the scale scores could be detecting, is a general disinterest in school that may appear among students during the spring. The significant mean difference values on the attitude toward school dimension tend to support this. Students in the Part A projects appear to express a less negative attitude than do their counterparts in the other two participation categories. Among the 7-12 grade group, too, the significance of the mean differences for the academic self-concept items tend to favor those in the Part A projects. They show a significantly smaller decline in attitudes than found among those who did not participate.

Student Attitudes and Effects of Program Objectives and Services

In applying for Part A funds, school districts identify program and educational needs, as well as the program goals and services to be met in their settings. Not all Part A projects emphasize the same goals or provide comparable services. As a consequence, variation in project objective and services may differentially impact student attitudes, especially attitudes directly related to unique services. It then follows, for example, that if a project emphasizes cultural

TABLE 9-9

AVERAGE ATTITUDE CHANGE SCORES BY PART A EXPOSURE FOR GRADES 4-6 (STUDENTS WITH BOTH FALL AND SPRING SCORES)*

Scale		Part A Participants	Part A Non-Participants	Unsure	Probability
School-Related Attitudes		Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Attitude toward school difference		-.26 (.54)	-.34 (.54)	-.20 (.52)	.001
	N	2977	989	265	
Value of education difference		.02 (.72)	.01 (.67)	-.03 (.64)	n.s.
	N	2896	960	260	
Academic self-concept difference		-.01 (.65)	-.05 (.61)	-.07 (.59)	n.s.
	N	2900	965	259	
Self-Related Attitudes					
Global self-esteem difference		-.01 (.36)	.01 (.33)	-.01 (.34)	n.s.
	N	2968	985	264	
Self-derogation difference		.00 (.49)	.01 (.47)	-.01 (.47)	n.s.
	N	2952	979	264	
Self-esteem difference		-.01 (.44)	.01 (.42)	-.01 (.44)	n.s.
	N	2938	977	262	

*Difference scores were computed for all the students who had both fall and spring scores. Means of these differences are reported as changes. Spring scales are subtracted from fall baseline scores. Because scales are scored such that 1 is high esteem, a positive difference indicates an improvement and a negative difference indicates a decline in attitude.

TABLE 9-10

AVERAGE ATTITUDE CHANGE SCORES BY PART A EXPOSURE FOR GRADES 7-12 (STUDENTS WITH BOTH FALL AND SPRING SCORES)*

Scale		Part A Participants	Part A Non-Participants	Unsure	Probability
School-Related Attitudes		Mean (S.D.)	Mean (S.D.)	Mean (S.D.)	
Attitude toward school difference		-.03 (.47)	-.09 (.44)	-.07 (.45)	.01
	N	3542	245	1831	
Value of education difference		-.01 (.47)	-.06 (.47)	-.04 (.45)	n.s.
	N	3514	240	1822	
Academic self-concept difference		-.01 (.44)	-.08 (.51)	.00 (.42)	.01
	N	3510	240	1816	
School fairness difference		-.01 (.75)	.03 (.68)	.01 (.68)	n.s.
	N	3450	234	1783	
Self-Related Attitudes					
Global self-esteem difference		.02 (.37)	-.01 (.39)	.02 (.35)	n.s.
	N	3473	239	1808	
Self-derogation difference		.04 (.72)	.01 (.75)	.06 (.66)	n.s.
	N	3416	234	1781	
Self-esteem difference		.01 (.43)	-.03 (.44)	.01 (.40)	n.s.
	N	3484	239	1812	

*Difference scores were computed for all the students who had both fall and spring scores. Means of these differences are reported as changes. Spring scales are subtracted from fall baseline scores. Because scales are scored such that 1 is high esteem, a positive difference indicates an improvement and a negative difference indicates a decline in attitude.

identification and its efforts are effective, cultural attitudes should be most positive. Similarly, if a project's objective is to improve academics and its staff strongly emphasize this area, academic-related attitudes should be much stronger.

To explore the relationship between project emphasis in terms of objectives and services on certain student attitudes, four objectives were selected. These were chosen from those identified by project directors (see Chapter 4), that appear to relate to corresponding attitude measures. Specifically, those selected pertained to improvement in: academic skills, attitude toward school, cultural awareness or knowledge, and self-concept. Four services were also selected on the basis of their relevance for assessing existing attitude data; these were: cultural activities, counseling and guidance services, home-school coordination services, and tutorial activities.

The relationship between project objectives on spring student attitudes for both grade groups were examined. Only 7 of 16 comparisons of the 4-6 grade scale means and 10 of 18 comparisons of the secondary grade scale means were found to be significant when analyzed by t-tests. In the elementary group data set, the direction of significant means reflected an inconsistent and difficult to interpret pattern. For example, mean self-esteem and cultural identification scale scores were highest when academic objectives were not present, and cultural identification was most positive when improving attitude toward school was not a project objective. On the other hand, students' attitudes toward school were most positive when projects considered enhancement of school attitudes their objective.

The direction of significant mean scale differences for students in grades 7-12 was also inconsistent and difficult to interpret. In projects without academic objectives, attitudes toward school fairness, global self-esteem, and cultural identification were most positive. Where school attitudes were promoted as objectives, global self-esteem, tribal identification, and cultural instruction had higher mean scores. However, where school attitudes were not stated as project objectives, attitudes toward school, value of education, and school fairness attitudes tended to be most positive. Elementary school findings were inconsistent and thus are not discussed here. In contrast, the culture and self findings for secondary school youth were more consistent with previous findings. The statistically significant mean scale values were highest for projects with culture and self objectives for school-related attitudes and global self-esteem (and self-esteem). Tribal identification was also highest for the projects with a culture emphasis. While the elementary school findings were somewhat inconsistent, the secondary results show a definite pattern: culture and self objectives appear to promote the development of the most positive levels of attitude toward school and self.

It must be noted that the previously described analyses were unable to control for many factors. No information was collected on the quality of the services, the effectiveness of staffs and personnel in providing services, or the responsiveness and level of participation of students. All of these factors, among others, could directly influence student attitudes. Thus, whether the findings are due to sound needs assessment procedures leading projects to have activities where there are problems (see Chapter 5), negative reactions to project activities, simply the workings of chance or various other possible explanations is not clear from the data.

Results from the analysis are listed below. Only the scales with significant mean differences are reported. Also, after the scales, in parentheses, probability values and the direction of the means for the two conditions (with or without the service) are reported. Here, too, a scattered pattern of relationships was found.

Student Attitudes and Student Characteristics

The relationship between student attitudes and students' sex, grade level, and academic performance was also investigated. Scale score averages and correlations were examined and contrasted for these variables. Analyses comprise data collected during the fall and spring and data merged for the fall-spring respondents.

Attitude scale responses were analyzed according to the sex of the respondent. Mean attitude scale scores by sex indicate that females scored more positively in all the school-related scales at both grade levels, with the exception of the spring elementary sample for academic self-concept. For self-related attitudes, males and females for grades 4-6 differed only on spring global self-esteem and self-derogation, with males scoring more positively. However, for grades 7-12, males scored more positively on all the scales. Females scored more positively on cultural identification and instructional scales.

Mean scale scores were also compared across grade level. Within the elementary sample, differences by grade were found for all the school-related attitudes. These attitudes were most positive for grade 4 across all scales. No differences were found for self-related attitudes, except for the spring self-esteem scale, which was most positive at grade 6. All the culture identification scales for grades 4-6 were most positive at grade 4.

Within the fall secondary group sample, mean differences were found for all scales. The self-esteem scales and the school fairness scale became increasingly positive with grade level. For the other school-related scales, a curvilinear relationship was noted, with scores being most positive at the seventh grade, then becoming less positive until the upper grades (11 and 12), at that point again becoming increasingly more positive.

In particular, academic self-concept scores reflected a more positive self-concept for each of the grades 9-12. This pattern is fully consistent with Reynolds (1982) who used the 40-item Academic Self-Concept Scale (alpha reliability of .91) with 200 undergraduate college students and found those scores to directy correlate with the year of college schooling.

With respect to global self-esteem, the grade 7-12 scale developed by Rosenberg (1965) and widely used in the literature, the level of scores directly improved from grade 7 to grade 12. The mean of 2.20 in grade 7 which indicates a moderately positive level of self-esteem, improved with grade level so that at grade 12, the mean score was 2.03 and, therefore, indicated an even more positive level. (All means were based on between 924 and 1,723 Indian students; standard deviations were almost identical, .36-.38.) This finding, that global self-esteem appears to improve with grade level, is fully consistent with McCarthy and Hoge (1982), who also used the Rosenberg Self-Esteem scale with almost 2,000 parochial school students (51 percent minority) in the seventh, ninth, and eleventh grades. These students were administered this scale in each of two years. The statistically significant findings indicated an improvement of self-esteem across the three grades, and in each of the two years. These findings from the literature are indicative, although not conclusive, of the possibility that self-esteem tends to improve with year of schooling and educational experience.

For the secondary spring sample, a similar curvilinear pattern was found for the school-related and pride scales. The same pattern of increasing self-esteem with grade level also existed for the esteem scales.

Attitudes and Academic Performance

Finally, a series of bivariate correlation coefficients were computed to determine if certain types of attitudinal measures were significantly related to reading and mathematics test scores. Table 9-11 indicates that low, although statistically significant, relationships were found between students' attitude toward school, their perceived value of education, their academic self-concept, their global self-esteem, and each of the dependent measures. These relationships held for students in grades 4-6 and in grades 7-12.

The strongest relationships were obtained when correlating academic self-concept with reading and mathematics scores, as might be expected. Relationships at the 7-12 grade range were higher than at the 4-6 level. The obtained correlations of reading and mathematics scores with either academic self-concept or global self-esteem were lower than those found in other studies (Revicki, 1982; Bryne and Carlson, 1982; Hansford and Hattie, 1982). For example, the latter meta-analysis study computed an "average" correlation of self-concept of ability with performance/achievement of $r = .42$ (S.D. of that correlation = .22) and .22 with self-esteem (S.D. = .17). However, the present finding that reading and mathematics achievement were more related to academic self-concept than to global self-esteem is fully consistent with the causal modeling approaches used by Bryne and Carlson to obtain the same results, using Canadian secondary school students. The only attitudinal measure which was not significantly related to reading or mathematics scores was students' identification with being Indian.

TABLE 9-11

CORRELATIONS BETWEEN ATTITUDINAL MEASURES AND READING AND MATHEMATICS OUTCOMES BY GRADE RANGE

	Grades 4-6 (N=2129-2202)		Grades 7-12 (N=2454-2559)	
Attitude Measure	Reading	Math	Reading	Math
Attitude toward school	.083	.055	.057	.111
Value of education	.151	.112	.199	.210
Indian identification and pride	.006*	.039*	.021*	.015
Academic self-concept	.190	.200	.354	.355
Global self-esteem	.095	.108	.204	.172
Mathematics	.555	--	.607	--

*Not statistically significant ($p > .001$); all other correlations presented here are statistically significant.

Notes: (1) Attitude measures were created for each student by summing a series of four-point rating scale items in which 1 = Very much agree and 4 = Very much disagree, and dividing by the number of items to which the student responded. Because of the direction of scoring, attitude-test score correlations have a negative sign which has been dropped in this chapter.

(2) Correlations are based on slightly varying sample sizes.

(3) Academic self-concept and global self-esteem correlated .392 for Grades 4-6 and .501 for Grades 7-12.

Related to this, these and other recent studies (Calsyn and Kenny, 1977; Revicki, 1982; Byrne and Carlson, 1982) have used causal modeling approaches to show that academic achievement is more likely to predict academic self-concept or global self-esteem, than are self-concept measures to predict academic performance. The timing of the measurements of academic achievement (spring 1980) and self-concept (fall 1981) in the present study supports the causal conclusions of those earlier studies. Positive academic self-concepts in Indian students appear to be the results of efforts to improve academic performance, and they are probably not the cause for improvement.

Summary

As discussed in Chapter 2, during the design of the evaluation there was considerable debate regarding the appropriateness of trying to assess project impacts on student attitudes. Issues of instrumentation, design, and the time required to assess attitude change were all subjects of deliberation. So too was the question of whether or not the presumption of relatively poor attitudes on the part of Indian children was warranted, and thus whether or not it was reasonable to expect projects to bring about a positive change.

In the end, it was decided to collect data from students regarding their attitudes toward school, overall self-concept, and themselves as Indians or Alaska Natives. More project directors reported having the objective of improving student self-concept than any other cited project objective, and improving attitudes toward school and Indian heritage were among the most frequently cited objectives as well.

Consequently, considerable time and resources were devoted to the development of suitable attitude scales, and to gathering associated data from Indian students in grades 4-12 in the fall and spring of the 1981-82 school year.

The data from the approximately 12,000 Indian students surveyed show that the majority of both elementary and secondary school students had relatively good attitudes toward school, themselves, and Indian culture in the fall of 1981. The data also show that there was little significant change in these attitudes over the course of the 1981-82 school year. Intensive analyses of the data indicate that scores of Part A project participants declined less from fall to spring than non-participants, and that more positive attitudes along some dimensions are more highly associated with certain programmatic variables than with others. However, overall, the impact-oriented analyses provided no clear results and, therefore, for the most part no significant differences between groups. Other analyses also did not establish a clear relationship between programmatic variables and attitude scale results. The extent of Part A project impacts on student attitudes consists of a mixed picture, although one which indicates that some moderately positive effects on student attitudes may have occurred.

CHAPTER 10: KNOWLEDGE AND ASPIRATIONS OF CURRENT PUBLIC HIGH SCHOOL STUDENTS WITH RESPECT TO POST-SECONDARY ACADEMIC OPPORTUNITIES

The documentation and testimony leading to passage of the Indian Education Act highlighted the concern over the relatively low number of Indians and Alaska Natives going on to college or other forms of post-secondary education. Thus, support for undergraduate and graduate programs was included in the Act. In addition to this, Indian students have been eligible for many federally-supported post-secondary programs over the past decade. Part A Program regulations do not explicitly cite as permissible activities designed to increase the post-secondary academic knowledge and aspiration levels of high school students. Nonetheless, these are areas of concern to many project staff, and associated impacts appear reasonable to expect from counseling, attendance, or other project activities.

Consequently, as part of the spring data collection, Indian students in grades 10-12 were asked a series of questions about their knowledge of post-secondary academic opportunities and whether they desired to obtain post-secondary schooling. There were a total of 2,860 Indian students in grades 10-12 who completed the student questionnaire, and approximately 95 percent completed the items dealing with post-secondary knowledge and aspirations.

There were three main areas of questions concerning post-secondary academic knowledge and aspirations. Students were asked:

(1) If anyone in the school had talked to them about going to school after high school, and if anyone had encouraged them to go on to school;

(2) Whether they knew about colleges and vocational schools, scholarships for Indian students, and special schools or programs for Indian students; and

(3) Whether they would like to continue their education after high school, and if so, where.

The results on these three areas are presented separately below.

Interactions With School Staff

Students were first asked if anyone in the school had talked to them about colleges, universities, or vocational/technical schools where they might go after finishing high school. Three-quarters (75%) of the students reported that they had had such conversations. Table 10-1 shows the percentages of all responding students who reported conversations with various types of school officials.

TABLE 10-1

PERCENTAGES OF STUDENTS REPORTING CONVERSATIONS WITH VARIOUS TYPES OF SCHOOL OFFICIALS ABOUT POST-SECONDARY SCHOOLS
(N = 2759)

Type of School Official	Percentage of All Students
Guidance counselors	52%
Teachers	36
Indian education project staff	22
Principals or assistant principals	9
Others	14

*As students could report conversations with more than one type of school official, the percentages total to more than 100%.

The data indicate that students are most likely to talk to guidance counselors and teachers about post-secondary opportunities. Almost a quarter of the responding students, however, indicated that they had had conversations about post-secondary opportunities with Indian Education project staff.

In order to gain additional information on the impact of the Part A Program, students were divided (based on a series of screening questions) into those who had definitely had contact with the program, those who might have had contact with the program,[1] and those with no contact with the program during the 1981-82 school year. Table 10-2 shows that students who had contact with Part A were more likely to have discussed post-secondary opportunities with school officials than those who had not had such contact.[2]

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[1] These students' responses regarding program participation were ambiguous, suggesting that at most their contact was quite limited.

TABLE 10-2

CONVERSATIONS ABOUT POST-SECONDARY SCHOOLS BASED ON CONTACTS WITH THE PART A PROGRAM

Conversations About Post-Secondary Schools	Contact With the Part A Program Yes (N=1601)	Perhaps (N=1024)	No (N=133)
Yes	79%	70%	65%
No	21	30	35
Total	100%	100%	100%

$X^2 = 30.13$, df = 2, $p < .001$.

Whether students had talked to someone in the school about post-secondary academic opportunities also was related to certain student and project characteristics. Female students were more likely to have had such conversations than male students, and students in higher grades were more likely to have had conversations than students in lower grades (see Table 10-3).

TABLE 10-3

CONVERSATIONS ABOUT POST-SECONDARY OPPORTUNITIES BY GRADE AND SEX

Conversations About Post-Secondary Schools	Male Students			Female Students		
	Grade			Grade		
	10 (N=486)	11 (N=456)	12 (N=344)	10 (N=545)	11 (N=531)	12 (N=396)
Yes	61%	72%	87%	68%	76%	92%
No	39	28	13	32	24	8
Total	100%	100%	100%	100%	100%	100%

X^2 (Sex) = 11.36, df = 1, $p < .001$, X^2 (Grade) = 142.64, df = 2, $p < .001$

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[2] Findings presented throughout this chapter are based on statistically significant between-group differences and chi-square tests of such differences.

This latter finding was expected, since students in higher grades are closer to actually entering post-secondary institutions. Students who attended schools on or near reservations, in metropolitan areas (in or near cities of 50,000 or more), or in other urban areas (cities of 10,000-50,000) were more likely than students in non-reservation rural areas to have discussed post-secondary opportunities with school officials. (The percentages of positive responses were 77%, 76%, 74%, and 70% respectively, with $X^2 = 11.30$, df = 3, $p < .05$.)

Another question asked of students was whether anyone in the school had encouraged them to go to a college, university, or vocational/technical school after graduating from high school. Approximately 70 percent of Indian students responded that they had been so encouraged. When asked what kind of school had been recommended, 45 percent of all responding students said that they had been encouraged to attend a college or university, 16 percent said that they had been encouraged to attend a vocational school, 5 percent said that no particular type of school had been mentioned, and 1 percent said they had been encouraged to attend some other kind of school. Exposure to the Part A Program appears to have increased the likelihood that attendance at a post-secondary school was encouraged. As Table 10-4 indicates, 10 percent more of those students who had contact with the Program than those who did not have contact (i.e., 72% vs 62%) were encouraged to attend a post-secondary school.

TABLE 10-4

ENCOURAGEMENT OF POST-SECONDARY EDUCATION BY LEVEL OF CONTACT WITH THE PART-A PROGRAM

Encouragement for Post-Secondary Education	Contact With the Part A Program		
	Yes (N=1544)	Perhaps (N=974)	No (N=123)
Yes	72%	66%	62%
No	28	34	38
Total	100%	100%	100%

$X^2 = 15.44$, df = 2, $p < .001$.

The extent to which students reported that they had been encouraged to attend post-secondary school was also strongly related to the grade and sex of the student. Female students were more likely than male students to report that they had been encouraged, and students in higher grades were more likely to report such encouragement than students in lower grades (see Table 10-5). Perhaps not surprisingly, males were more likely than females to be encouraged to attend vocational schools (21% versus 12% of all students), while females were more likely than males to be encouraged to attend colleges or universities (52% versus 37%).

TABLE 10-5

ENCOURAGEMENT OF POST-SECONDARY EDUCATION BY GRADE AND SEX

Encouragement for Post-Secondary Schools	Male Students Grade 10 (N=453)	Male Students Grade 11 (N=438)	Male Students Grade 12 (N=336)	Female Students Grade 10 (N=519)	Female Students Grade 11 (N=514)	Female Students Grade 12 (N=381)
Yes	58%	63%	77%	67%	71%	87%
No	42	37	23	33	29	13
Total	100%	100%	100%	100%	100%	100%

X^2 (Sex) = 22.08, df = 1, $p < .001$ X^2 (Grade) = 78.28, df = 2, $p < .001$

Knowledge of Post-Secondary Opportunities

The second area of questions asked of Indian students concerned their knowledge of post-secondary academic opportunities. In particular, they were asked if they knew:

1) Where to go if they wanted to find out more about universities, colleges, or vocational/technical schools;

2) About any grants or scholarships that give Indian students money to go to a college or university;

3) Where to go if they wanted to learn more about grants or scholarships for Indian students;

4) About any colleges, universities, or vocational/technical schools in the United States that are mostly for Indian students; and

5) About any colleges or universities in the United States that have programs specifically for Indian students.

In all five questions, students were asked to name a specific source of information, grant, or post-secondary school.[3] The number of Indian students who indicated that they had knowledge in each of the five areas is illustrated in Table 10-6.

TABLE 10-6

KNOWLEDGE OF POST-SECONDARY OPPORTUNITIES
(N=2743)

Area of Knowledge	Percentage of Students
Where to go for information on schools	67%
Grants or scholarships for Indian students	32
Where to go for information on grants	39
Schools that are mostly for Indian students	33
Schools with special programs for Indian students	20
Mean number of areas indicated	1.9

Whether or not students had had contact with the Part A project had a significant impact on knowledge of post-secondary opportunities. Table 10-7 shows that for each of the five knowledge areas, students who had contact with the Part A project were more likely to have knowledge than students without contact.

There were also a number of student and project characteristics which were related to the extent of knowledge of post-secondary opportunities. Students in higher grades had considerably more knowledge than did students in lower grades, and females had more knowledge than males. Table 10-8 shows the mean number of areas about which students reported they had knowledge, by grade and by sex.

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[3] Responses were coded such that a plausible response to the follow-up request for specific information was required in order for a student's response to the main question to be counted in the analysis as a valid answer.

TABLE 10-7

KNOWLEDGE OF POST-SECONDARY OPPORTUNITIES BY LEVEL OF CONTACT WITH THE PART A PROGRAM

(percentage of students indicating knowledge)

Area of Knowledge	Contact With the Part A Program Yes (N=1593)	Perhaps (N=1019)	No (N=131)
Where to go for information on schools[a]	70%	64%	57%
Grants or scholarships for Indian students[b]	36	27	31
Where to go for information on grants[c]	44	33	27
Schools that are mostly for Indian students[d]	37	26	32
Schools with special programs for Indian students[e]	24	14	18
Mean number of areas indicated	2.1	1.6	1.6

[a] $\chi^2 = 17.94$, df = 2, $p < .001$

[b] $\chi^2 = 21.84$, df = 2, $p < .001$

[c] $\chi^2 = 41.22$, df = 2, $p < .001$

[d] $\chi^2 = 40.98$, df = 2, $p < .001$

[e] $\chi^2 = 35.41$, df = 2, $p < .001$

TABLE 10-8

KNOWLEDGE OF POST-SECONDARY OPPORTUNITIES BY GRADE AND BY SEX

(mean number of areas reported)

Sex	Grade 10 (N=1028)	11 (N=979)	12 (N=739)
Male Students	1.4	1.7	2.4
Female Students	1.6	1.9	2.7

F (Sex) = 16.64, df = 1/2740, $p < .001$
F (Grade) = 117.46, df = 2/2740, $p < .001$

In terms of project characteristics, the data indicate that students attending schools on or near reservations had more knowledge of academic opportunities than did students in other geographic settings. Students in schools on or near reservations reported knowledge in an average of 2.1 of the five areas, while students in other settings reported knowledge in an average of 1.7 of the areas ($F = 12.00$, $df = 3/2742$, $p < .001$). Students on or near reservations were more likely to report knowledge on availability of scholarships, the presence of special schools for Indians, and the presence of special programs for Indians. There were no significant differences in terms of knowledge concerning where to go to learn more about post-secondary schools, or where to go to learn more about scholarships.

There was a difference in level of knowledge of post-secondary opportunities based on the presence or absence of a counseling component in the Part A project. Students in projects with a counseling component (59 projects) reported knowledge in an average of 2.0 of the five areas, while students in projects without a counseling component (55 projects) reported knowledge in an average of 1.8 areas ($F = 12.30$, $df = 1/2733$, $p < .001$). The differences between groups were significant in the areas of where to go for information on grants, schools that are mostly for Indian students, and schools with special programs for Indian students. There were no significant differences in the areas of where to go for information on post-secondary schools, and grants or scholarships for Indian students.

Aspirations For Post-Secondary Education

The third area of questions asked of Indian students concerned their aspirations for post-secondary education. Students were asked if they would like to continue their education after high school and, specifically, if they would like to attend a vocational/technical school and/or a college or university. Nine out of ten Indian students (90%) reported that they had post-secondary academic aspirations, with 32 percent of those specifying that they would like to attend a vocational/technical school, and 53 percent specifying that they would like to attend a college or university.

Aspirations for post-secondary education were more prevalent among those students with contact with the Part A projects than for students without contact. As Table 10-9 indicates, students with contact with Part A projects were more likely to desire to go to a college or university, but were not more likely to desire to go to a vocational/technical school.

TABLE 10-9

ASPIRATIONS FOR POST-SECONDARY EDUCATION BY LEVEL OF CONTACT WITH THE PART A PROGRAM
(percentage of students)

	Contact With the Part A Program		
Aspirations for attending. . .	Yes (N=1580)	Perhaps (N=1002)	No (N=128)
Some form of post-secondary school[a]	92%	89%	87%
A vocational/technical school[b]	31	36	30
A college or university[c]	56	49	52

[a] $\chi^2 = 7.67$, df = 2, $p < .05$
[b] $\chi^2 = 8.04$, df = 2, $p < .05$
[c] $\chi^2 = 15.97$, df = 2, $p < .001$

Post-secondary aspirations also were related to certain student characteristics. As Table 10-10 shows, female students were more likely than male students to want to go to a college or university, while male students were more likely to want to go on to a vocational/technical school. Aspirations for vocational/technical training also increased from grade 10 to grade 12, while aspirations for attending a college or university decreased. These changes may indicate that there is an increasing vocational orientation as students approach graduation.

The other student characteristic which was related to post-secondary aspirations was achievement on standardized tests.[4] Table 10-11 summarizes the mean

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[4] Achievement test scores from spring 1981 were available for 1,418 tenth to twelfth grade students who completed the questions on post-secondary knowledge and aspirations in spring 1982. See Chapter 4 for a discussion of the procedures used in obtaining and analyzing these test score data.

TABLE 10-10

ASPIRATIONS FOR POST-SECONDARY EDUCATION BY GRADE AND BY SEX
(percentage of students)

Aspirations for attending. . .	Males Grade 10 (N=470)	Males Grade 11 (N=447)	Males Grade 12 (N=343)	Females Grade 10 (N=537)	Females Grade 11 (N=520)	Females Grade 12 (N=393)
Some form of post-secondary school[a]	87%	87%	92%	92%	94%	92%
A vocational/technical school[b]	36	39	42	22	30	31
A college or university[c]	51	44	45	61	57	58

[a] X^2 (Sex) = 21.06, df = 1, $p < .001$ X^2 (Grade) = 0.99, df = 2, n.s.
[b] X^2 (Sex) = 28.41, df = 1, $p < .001$ X^2 (Grade) = 14.79, df = 2, $p < .001$
[c] X^2 (Sex) = 66.95, df = 1, $p < .001$ X^2 (Grade = 6.32, df = 2, $p < .05$

TABLE 10-11

MEAN STANDARDIZED READING AND MATHEMATICS SCORES BY TYPE OF POST-SECONDARY ASPIRATIONS

Aspirations to attend . . .	Mean Reading Score[d] (N=705)	Mean Math Score[d] (N=713)
Some form of post-secondary school		
Yes	47.6	48.2[a]
No	45.0	44.8
A vocational/technical school		
Yes	46.1	47.1
No	48.2	48.6
A college or university		
Yes	49.1[b]	49.7[c]
No	44.9	45.6

[a] F = 4.00, df = 1, $p < .05$

[b] F = 5.30, df = 1, $p < .05$

[c] F = 5.56, df = 1, $p < .05$

[d] These scores are presented in T-score format.

standardized ($\overline{X}$ = 50, S.D. = 10) reading and mathematics scores of Indian students who did and did not have aspirations for post-secondary education. The results indicate that students who had aspirations for college had higher reading and mathematics scores than students without college aspirations. However, there were no significant differences in test scores between those who aspired to vocational/technical schools and those who did not.

Post-secondary aspirations also were related to certain project characteristics. As Table 10-12 shows, students in projects on or near reservations or in other rural areas were more likely to desire to attend vocational/technical schools, while students in projects in metropolitan areas were more likely to desire to attend a college or university. Finally, the relationships between student post-secondary knowledge and aspirations and a number of other variables (educational level of the project director, perceived success of a counseling component, etc.) were also examined, but the results did not provide clear explanations of the basic findings.

TABLE 10-12

POST-SECONDARY ASPIRATIONS OF STUDENTS BY GEOGRAPHIC LOCATION OF PROJECT
(percentage of students)

Aspiration to attend. . .	On or Near a Reservation (N=1435)	Other Rural Area (N=654)	Urban Area (N=291)	Metropolitan Area (N=330)
Some form of post-secondary school[a]	92%	87%	86%	92%
A vocational/technical school[b]	36	32	26	24
A college or university[c]	53	52	47	64

[a] $\chi^2 = 24.26$, df = 3, $p < .001$

[b] $\chi^2 = 25.62$, df = 3, $p < .001$

[c] $\chi^3 = 18.93$, df = 3, $p < .001$

Summary

A majority of Indian students have talked to school officials about post-secondary academic opportunities, have been encouraged to attend post-secondary school, and would like to attend such a school. Indian students also have moderate levels of knowledge concerning post-secondary opportunities. The Part A Program appears to be a stimulus to post-secondary education. Students who had contact with the program in the 1981-82 school year reported more knowledge of post-secondary opportunities, and indicated higher levels of post-secondary academic aspirations than those who did not have that contact. Indian female students were more likely than Indian male students to want to go to college, while Indian male students were more likely to want to go to vocational/technical school. The location of the school was also related to students' knowledge of post-secondary opportunities and aspirations for post-secondary study.

CHAPTER 11: PARENT INVOLVEMENT WITH THE SCHOOL AND SCHOOL RELATIONS WITH THE INDIAN COMMUNITY

Many members of the Indian community view changes in parental attitudes and relations toward public schools and toward the formal schooling of their children as one of the most important areas of Part A Program impact. Traditionally, Indian children were educated by their parents and community members, but with the loss of their independence came a decline in involvement in their childrens' education. From the time children began to attend Bureau of Indian Affairs-operated schools in the latter part of the nineteenth century until recent years, Indian parents have had few, if any, structured opportunities to influence school decision-making. In fact, for many years, children were intentionally separated physically from the influences of their families. Parents had no contact with their children for long periods of time, and the children were counseled to turn away from the customs and traditions of their parents. Only recently have the opportunities for Indian parent involvement been renewed.

In 1972, with the passage of the Indian Education Act, public schools that qualified were given the opportunity to apply for funds to support "programs specifically designed to meet the special educational needs of Indian children." Further provisions of this action required that these public school programs be developed:

- In open consultation with parents of Indian children, teachers, and where applicable, secondary school students, including public hearings at which such persons have a full opportunity to understand the program, and
- With the participation and approval of a committee composed of and selected by parents of children participating in the program ..., teachers, and, where applicable, secondary school students of which at least half the members shall be parents.[1]

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[1] P.L. 92-318; 86 Stat. 337.

The Indian Education Act also contains a provision which requires that the funded programs "will be operated and evaluated in consultation with, and the involvement of, parents of the children and representatives of the area to be served, including the committee" previously established. Finally, a subsequent amendment to the Act expands the definition of "parent" to include legal guardians or others who stand *in loco parentis*, including foster parents and grandparents with whom Indian children may reside.

This chapter provides a description of Indian parental involvement in Part A projects and their respective schools and school districts. It begins with a focus on the Part A parent committee, broadens to present findings regarding Indian parental involvement generally, and concludes with a discussion of factors which affect parents' general satisfaction with their Part A project. Both descriptive and impact oriented findings are presented using data from a variety of sources. The main sources of data on which the reported findings are based are: parent committee chairpersons, other active committee members (2.6 per project), a probability sample of Indian parents (mean of 13.4 per project), project directors and staffs, and reviews during the site visits of parent committee minutes or records.

Role of the Parent Committee in Part A Projects

The Indian Education Act, as amended, clearly defines the make-up and responsibility of Part A project parent committees. It requires the use of an advisory board consisting of parents, legal guardians, teachers, and secondary school students, with the stipulation that at least half of the group be Indian. These requirements respond directly to many years of testimony and reports to Congress attesting to the alienation of Indian parents from public schools and their lack of involvement in the schooling of their children.

The committee has authority which goes beyond that described for advisory groups in many other federal programs. The Part A project parent committee has a legal mandate which requires schools receiving funds under the auspices of the Indian

Education Act to consult with its members and seek their approval of applications submitted for funds to which they are entitled by their levels of Indian enrollment. Additionally, the committee's consultation, along with that of other community members, is required in connection with the operation and evaluation of the project. Policies and procedures which provide for this are required to be included in each local project application.

Each Part A project, then, must establish a parent committee. That committee by regulation, must: (1) participate in the needs assessment, design, operation, and evaluation of the project; (2) review and approve in writing the project application; (3) advise the school district on policies and procedures regarding the hiring of project staff; and (4) make recommendations concerning applicants for project staff positions.

Committee Membership

Table 11-1 shows the distribution of Part A projects by the size of their parent committees. Overall, parent committees had a mean membership of 10 members. Of these members, almost all (87%) were Indian. Most members were parents (71%), and women (70%). Some were teachers (12%), school district staff (11%), and high school students (14%). All projects met Part A membership guidelines requiring that over half of parent committee members be Indians and over half parents.

Most (77%) members of the parent committee attend meetings regularly; in addition, a mean of 4.5 non-committee members (such as school administrators and project staff) attend each meeting. It was also reported that school district administrators not directly employed by the Part A project attended every parent committee meeting in 27 percent of the projects. Such administrators attended meetings most of the time in another 19 percent of projects. Part A regulations require that parent committee members be elected by parents of Indian students, teachers, and Indian secondary school students, if there are any enrolled in the school district. The specific election procedures are not described in the

TABLE 11-1

SIZE OF PART A PROJECT PARENT COMMITTEES (1981-82 SCHOOL YEAR)
(Weighted N=865)*

Number of Members	Percentage of Projects
4 or fewer	7%
5 - 6	20
7 - 8	20
9 - 10	21
11 - 12	13
13 - 15	11
16 - 20	6
21 or more	3
MEAN	10.2

*The actual number of respondents was 114. These data have been weighted to make the findings statistically representative of all projects.

regulations. As shown in Table 11-2, committee members are elected by parents at 58 percent of the Part A projects, and by a community group at 17 percent. At 7 percent of the projects, parents are selected by a combination of three methods (parent election, community group election, and local chapter selection). At 16 percent of the projects, parents join the committee by volunteering; and at the other 2 percent of the projects, parents are appointed by local school officials (1%) or tribal/chapter leaders (1%). These results seem to indicate that in 18 percent of the projects, the regulation requiring the election of members is not followed. In these projects, parent committee members primarily volunteer to serve. It is not known whether these volunteers are "drafted" or urged by the Indian community to serve; where this occurs they may be considered to be "elected." However, since more members are Indian, the self-selection or election of volunteering would appear to be generally in keeping with the intent of the Act, if technically a violation of the regulations.

TABLE 11-2

METHODS BY WHICH PARENT COMMITTEES ARE CHOSEN AS REPORTED BY PARENT COMMITTEE CHAIRPERSONS
(Weighted N=865)*

Selection Method**	Percentage of Projects
Election by parents	58%
Election by community group	17
Members volunteer	16
Combination of three methods (parent election, community group election and local chapter selection)	7
Other	2
TOTAL	100

*The actual number of respondents was 114. Data were weighted to make the findings statistically representative of all projects.

**Parent committee members were asked to choose one selection method from a list or to specify their method of selection.

A review of parent committee records during the fall site visits indicated that a mean of 9 parent committee meetings had been held during the previous 12 months. Nearly all (89%) projects kept a record of the names of specific people attending each meeting. A full set of minutes of parent committee meetings were available in most (79%) of the projects, and a partial set in most of the remaining projects (19%). Project records provided evidence that most (90%) of the parent committees had reviewed the Part A application and most (93%) had formally approved the application. Project records also indicated that nearly two-thirds (65%) of the parent committees had met with the school board or senior district staff on at least one occasion.

The data also show that over half (62%) of parent committees are involved with the Part A project exclusively. Another one-quarter (26%) of the committees are also involved with the Johnson O'Malley (JOM) Act program. The remaining committees are involved with various combinations of JOM, Chapter I, and other program activities along with the Part A project.

Committee Activities

With respect to the Part A project, chairpersons were asked to indicate the extent to which their committees were involved in various activities. Results are shown on Table 11-3. The areas of greatest involvement were in deciding goals, budgets, project activities, and in communicating with parents.

TABLE 11-3

PARENT COMMITTEE INVOLVEMENT IN PART A PROJECT ACTIVITIES
AS REPORTED BY PARENT COMMITTEE CHAIRPERSONS
(Weighted N=865)*

Activity	Mean Rating**	Percentage of Projects		
		A Lot of Involvement	Some Involvement	No Involvement
Deciding on goals of project	2.7	75%	23%	2%
Deciding on project budgets	2.7	73	23	4
Deciding on project activities	2.6	66	27	6
Communicating with parents	2.6	61	35	4
Selecting project employees	2.4	56	32	13
Publicizing the project	2.4	49	45	6
Evaluating project activities	2.4	47	41	12
Communicating with outside groups	2.2	36	52	12
Selecting classroom materials	2.0	33	42	25
Making cultural presentations	2.0	34	38	28

*The actual number of respondents was 114; data were weighted to make the findings statistically representative of all projects.

**Rating scale used : 3 = A lot; 2 = Some; 1 = No involvement.

Chairpersons were also asked to indicate which methods their parent committees had used to get Indian parents and community members more involved with the Part A project. Results show that the methods most frequently used were messages sent home with parents (69%), local newspapers, radio, and TV messages (61%), public meetings (51%), home visits (19%), personal contacts with community groups and leaders (48%), project newsletters (38%), dinners, carnivals, and other attractions (37%), phone calls (21%), word-of-mouth (13%), and surveys and needs assessments involving parents (10%). When asked how effective these approaches were in getting people involved, 31 percent of chairpersons indicated they were very effective; 55 percent said they were somewhat effective; and 15 percent said they were not effective. As a follow-up to these questions, chairpersons were asked to list how parents could be motivated to get more involved with the Part A project. The most frequent responses were that project staff should do more personal contacting of parents (33%), food should be provided at meetings and special events (17%), and parents should be educated in their responsibilities toward, and the needs of, students (12%).

Almost all (96%) project directors reported that their projects' parent committees were involved in monitoring and evaluating the Part A project. When asked to list the types of involvements, project directors said they consisted most frequently of receiving monthly or quarterly reports from the project, discussions at parent committee meetings, and visiting classes and observing activities. Thirty-eight percent of project directors said parent committees were very involved in monitoring and evaluations; 44 percent said committees were moderately involved; 14 percent said they were slightly involved; and 4 percent said they were not involved.

Frequently, parent committees assist the project by securing parent and community support. Over three-quarters (79%) of the project directors said that the parent committee had made a difference in getting members of the Indian community or tribe to support the project. Over half (57%) of these directors reported that the committee members particularly helped in disseminating information and making the community aware of the project, and 40 percent said the committee members helped by interacting informally with members of the community in order to get parents and others involved.

Finally, when asked if the parent committee needed more training to be more effective, 50 percent of project directors said that some members needed training, and 30 percent said all members did. The most frequently mentioned types of training needed concerned rules and regulations, roles and functions of the parent committee, parliamentary procedures, and goals and objectives of Part A.

Impact of Parent Committees

Potentially, parent committees have impacts beyond their Part A projects and their staffs. Over two-fifths (45%) of the project directors reported that the parent committee had submitted recommendations to the school district administration or school board. In those projects submitting recommendations, 58 percent of the project directors reported the recommendations were adopted as recommended, 30 percent reported they were adopted with modifications, 4 percent reported they were adopted for later review, and 8 percent reported that no actions had been taken on parent committee recommendations. The areas of most frequent recommendations were use of project personnel, approval of project proposals, project plans and objectives, and general school programs for and policies toward Indians.

In addition, parent committees often benefit their own members. Parent committee chairpersons were asked the open-ended question: "What useful skills, knowledge and/or experience have you gained as a result of being a member of the parent committee?" Their responses included a number of different skills and areas of knowledge and experience. Most frequently (51%) mentioned was increased ability to function in the school and in the community. Another frequent (30%) response was an increase in organizational and program skills, including budgeting, proposal development, needs assessments, and communication skills. The third most frequent (28%) response was an increased ability to help children with school, through a better awareness of student needs and familiarity with educational materials.

Besides collecting data on skills, knowledge, and experience gained by committee chairpersons, current committee members were asked whether or not, after leaving the parent committee, any former members had become engaged in each of the specific activities listed in Table 11-4. As the Table shows, many former committee members are reported to have gone on the become active in other aspects of their local school districts or tribes. Although the information is second hand and it is possible that only a few active former members in a project could confound the results, these responses from active parents are judged to provide a reasonably accurate indication that parents have gone on from Part A committees to other involvements in their schools.

TABLE 11-4

PERCENT OF CURRENT MEMBERS REPORTING
EXTENT TO WHICH FORMER PARENT COMMITTEE MEMBERS HAVE BECOME
ACTIVE IN THE FORMAL EDUCATION PROCESS
(Weighted N=608)

Area of Activity	Percent of Committee Members Responding That Former Members Have Taken Specific Roles in the Formal Education Process*
Became member of another parent advisory group (PTA, Title VII, etc.)	63%
Hired as teacher's aide	58
Became a school volunteer	52
Became a member of the Tribal Education Committee	34
Been hired as a teacher	22
Been hired as a school counselor	21
Served as member of school board	18
Ran for school board	15
Been hired as a librarian	8
Been hired as school administrator	6

*For each item, respondents were given the choice, "Yes," "No," or "Don't know" to the question. After leaving the Parent Committee, have any former members become engaged in [any of the activities listed in Table 11-14].

Note: Due to multiple responses, percentages total more than 100%.

General Parent Involvement

On a somewhat different plane, Part A projects are concerned about the general involvement of Indian parents in local schools and the formal education of Indian children. Thus, members of the parent committee were asked to indicate the extent to which Indian parents in their school districts are involved in their children's education. The data show that 8 percent of the committee members said most parents are very involved; 55 percent indicated most parents are somewhat involved, and 37 percent indicated most parents are not very involved. Table 11-5 summarizes the responses from the 37 percent of the parent committee members to the followup question: "In your opinion, what are the most important reasons why Indian parents do not become more involved in their children's education?" The most frequently cited reasons were that their children do not want them to participate (93%), that the school discourages participation (93%), and that parents have no time (84%) or have too many other activities (82%). Project staffs were asked a similar question concerning parent involvement. Their most frequent answers were: parents believe education is the job of the school (46%), parents have other children at home to care for (42%), and parents do not know what kinds of things they can do for the school or project (40%).

All committee members were then asked if, they thought parents over the past three years, had become more involved in their children's education as a result of the Indian education project. The parents were specifically asked about five areas and given an opportunity to list other areas as well. As shown in Table 11-6, the results indicate that parents have taken a greater interest in what the school is doing, and have been involved to a greater extent in attending school activities.

Teachers were also asked whether parents had become more involved in their children's education in the past three years. The data show that 60 percent of teachers indicated that parents had become more involved. Of these, 87 percent said there was more contact between parents and students regarding student progress and behavior, 71 percent said there were more parent-teacher meetings; 55 percent said there were more Indian parents at PTA meetings and school functions; and 26 percent said there were more Indians elected to school board committees.

TABLE 11-5

REASONS SUPPLIED BY PARENT COMMITTEE MEMBERS FOR INDIAN PARENTS' NOT BEING MORE INVOLVED IN THEIR CHILDREN'S EDUCATION*

(Weighted N=786)**

Reason***	Percentage of Committee Members
Children don't want them to participate	93%
School discourages participation	93
Parents have no time	84
Parents have too many other activities	82
Parents have poor verbal communication skills	77
Parents work long hours	74
Parents feel participation would be a waste of time	73
School has no tradition of Indian parent involvement	70
Parents feel intimidated	69
Parents have transportation problems	62
Parents believe education is the job of the school	59
Parents have other children to care for	53
Parents lack interest	49

*Parent committee members were asked to indicate on a three point scale how involved Indian parents were in their children's education: not very involved, somewhat involved, or very involved. Only those parents (37%) who responded "not very involved" or "somewhat involved" were asked to indicate why Indian parents do not become more involved.

**The actual number of respondents was 264. These data have been weighted to make the findings statistically representative of all projects.

***Parents were asked to indicate which of 13 reasons were the most important reasons why Indian parents did not become more involved in their children's education. More than one reason could be chosen, thus percentages total more than 100%.

TABLE 11-6

AREAS OF INCREASED INVOLVEMENT BY PARENTS OVER THE LAST THREE YEARS AS INDICATED BY PARENT COMMITTEE MEMBERS

(Weighted N=865)**

Area of Involvement	Mean Rating*	Percent of Committee Members		
		A lot more involvement by parents	Somewhat more involvement by parents	No more involvement by parents
Parents are more interested in what school is doing	2.2	31%	54%	15%
Parents attend more of their children's school activities	2.1	32	46	22
Parents talk to teachers about their children more often	2.0	26	47	27
Relationship between school and community improved	2.0	24	50	27
Parents help students more with school work	1.9	17	56	27

*Rating Scale: 3 = A lot more; 2 = Somewhat more; 1 = No more involvement.

**The actual number of respondents was 290. These data have been weighted to make the findings statistically representative of all projects.

Principals also indicated that the Part A project had increased the interest and involvement of Indian parents. The data show that 23 percent of principals said that the project increased parents' interest and involvement in their children's education a great deal; 50 percent said interest and involvement was increased a moderate amount; 21 percent said a little; and 6 percent said not at all. Similarly, 16 percent of principals said the project had increased interest and involvement in the activities of the school a great deal; 49 percent said a moderate amount; 26 percent said a little; and 9 percent said not at all. Data also show that 14 percent of project staff felt the project had been very successful in getting parents involved in the project. Another 51 percent said the project had been moderately successful, and 34 percent said the project was only slightly successful or not successful at all.

School district administrators were also asked about the involvement of Indian parents. These data show that 24 percent of administrators felt the Part A project increased parent involvement to a great extent; 72 percent felt parent involvement was increased to some extent, and only 3 percent felt that parent involvement was increased to little or no extent.

In addition to members of the parent committee, parents of the students who were surveyed were also interviewed. These parents were asked if they were ever involved in the project as a staff member, volunteer, or advisor, or as a member of the parent committee; and 34 percent of the parents indicated they had been involved. Results show that 23 percent had been involved as a staff member, volunteer, or advisor. Twenty-one percent had served as members of the parent committee. For those who had been involved in one or more of these ways (34%), almost half (47%) served as a volunteer in the project. Other frequent modes of involvement were: telling others about the project (40%), helping decide what the project would teach or do (38%), providing comments on the project at a public hearing (33%), conducting a needs assessment (31%), monitoring and evaluating the project (29%), helping choose staff members (22%), and serving as a speaker or demonstrating a skill for Indian students (19%). Of those who said they were not involved, 44 percent said they did not have the time; 17 percent said they did not know they could get involved; and 14% said that no one asked them or that they were not aware of the project or parent committee.

Project staff members were asked the extent to which Indian parents had assisted their Part A projects. These data, shown in Table 11-7, indicate that staffs felt the greatest assistance was in staff selection. This contradicts the parents' view.

TABLE 11-7

PROJECT STAFF RATINGS OF THE EXTENT TO WHICH INDIAN PARENTS ASSISTED THE PROJECTBY AREA OF ASSISTANCE

Area of Assistance	Weighted N*	Mean Rating**	% of Staff Who Rated Parent Assistance			
			A Great Deal	Moderately	A Little	None
Staff selection	2042	3.1	49%	22%	14%	15%
Attending parent committee meetings	2164	3.0	26	47	22	4
General project planning	2102	2.9	32	36	20	12
Project monitoring/ evaluation	1987	2.7	31	28	23	19
Serving as project volunteers	2012	2.4	21	23	35	21
Curriculum development	1921	2.3	16	26	32	25
Serving as speakers, demonstrators, presenters	1966	2.2	16	20	37	27
Materials selection	1928	2.2	15	24	27	35
Materials development	1877	2.1	11	24	31	35

*The actual number of respondents was 413. Not all staff responded to each item, as reflected in the weighted N. These data have been weighted to make the findings statistically representative of all projects staff members.

**Rating scale: 4 = A great deal; 3 = Moderately; 2 = A little; 1 = None.

Communication Between Projects and Parents

Parents were asked to indicate the ways they had become acquainted with the Part A project. A number of parents gave more than one response. Over one-third

(38%) said they had received a letter from the project director or project staff; 26 percent said they had read about the project in the school or project newsletter; 22 percent said they had learned about it through members of the parent committee or other parents; and 19 percent said they had received a phone call from the project director or staff. Project staffs indicated that Indian parents most often contacted the project through telephone calls to project staff (66%) and/or to the school (63%). Notably, 21 percent of the staff members said that parents rarely initiated any contact with the project.

Relative to the ways project staffs contacted Indian parents, 72 percent of the staff members said they did this through messages sent home with students. Other ways staff members contacted parents were through the parent committee (56 percent of the staff) and by telephone calls to parents (55%). The most effective ways to contact parents, according to staffs, were by personal visits to homes (41%) and by telephone calls (35%). With respect to keeping parents informed, 32 percent of the project staff members said the project had been very successful; 56% said moderately successful; and only 13 percent said slightly successful or not successful at all.

Factors Which Affect Parents' General Satisfaction with Part A Projects

The data were further analyzed to determine what factors affect parents' general satisfaction with the Indian education project. A causal model was developed to specify how factors were linked together. The model proposed that the level of parents' general satisfaction with the project was influenced by interrelationships with six causal factors. The six factors were:

- Extent of communication from the project to the parents;
- Extent of parent participation in the project;
- Extent of parent committee involvement in the project;
- Extent of sensitivity of school personnel toward Indians;
- Extent to which parents perceived that the cultural needs of the Indian students were being met by the project; and
- Extent to which parents perceived that the project helped to improve the Indian students' academic performance in school.

The data collected during interviews with 1,388 parents of Indian children provided the necessary information for all factors, except for data on the extent of parent committee involvement in the project, which was derived from project director's questionnaires.

Each causal factor was assumed to have a direct effect on the level of parents' general satisfaction with the project, and the six causal factors were connected together in a conceptual "chain" beginning with the extent of communication and continuing in the order listed above. The causal model specified that any given factor was influenced by those factors preceding it in the chain. Thus, it was expected that parent participation was influenced by communications, parent committee involvement was influenced by both communications and parent participation, and so on.

The model (and its underlying conceptual basis) was tested using path analysis techniques, a form of multiple linear regression, which provide a measure of relative strength for each of the direct effects or relationships between a factor, and all factors preceding it in the chain. In this approach, the direction of the effect (which factor predicts another) can be assessed while standardized path or regression coefficients are used to indicate the relative strength of the effect from each preceding causal factor on the factor being predicted.[2]

The detailed results of the path analysis indicate that parents' general satisfaction with projects was influenced most strongly by their perception of the extent to which their children's cultural needs were being met. That is, the path coefficient (or direct effect of .664)[3] between the factor representing the extent to which cultural needs were met and general satisfaction was much larger than any of the other path coefficients derived from using the other causal factors in the analysis. The next most important causal factor in determining parents' general satisfaction was how much the project communicated with parents having a path coefficient of .178. Communications also indirectly increased the parents' general satisfaction, since communication principally caused or was related to the parents' perceptions that the project served to meet the cultural needs of American Indian students (.468). Communication also indirectly affected general satisfaction, through its relationship with the cultural needs (indirect effect of .316). The effort of a project to communicate with parents was found to be the most important causal factor in influencing the level of the parents' perception that the cultural needs of Indian students were being met. And this in turn had the strongest effect on influencing the level of general satisfaction with the project. Importantly, the path analysis results showed that project efforts to communicate with parents strongly influenced parents' participation in project activities (direct effect of .700).

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[2] For further details on the utility of path analysis in educational applications and its mathematical rationale, see: Wolfle, L.M. Strategies of path analysis. American Educational Research Journal, 1980, 17, 183-209, or Johnson, T.J., Buckholdt, D.R. & Ferritor, D.E. Causal modeling in educational and social program evaluation. Paper presented at the Annual Meeting of the American Educational Research Association, 1975.

The extent to which cultural needs were perceived to be met was the strongest factor influencing parents' perception of the extent to which the project was helping Indian students to improve their academic performance (.326). However, project help in improving academic performance had only the fourth largest path coefficient and thus had relatively less importance in influencing parents' general satisfaction with the project. For interested readers, a fuller presentation of the pattern of direct and indirect effects for each of the causal factors used in this analysis is contained in Appendix 3.

Analysis of the interview data collected from the parents of Indian students indicated that communications from the project to the parents was a key factor influencing parent participation in project activities. The analysis further revealed that the parents' perception of the extent to which the cultural needs of Indian students are being met is the single most important factor in influencing their judgment of the performance of the project.

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[3] Findings are presented here in terms of "direct effects" and "indirect effects," which equal the "total effect." The "total effect" between two factors therefore consists of: the portion of change in a variable transmitted directly from the causal factor to the resulting dependent factor, and the portion transmitted indirectly to the resulting dependent factor through other factors between them in the conceptual chain.

Summary

This chapter provided data on the extent and manner of parental involvement in Part A programs. According to Part A regulations, each project must establish a parent committee which must: (1) participate in the needs assessment, design, operation, and evaluation of the project; (2) review and approve the project application; (3) advise the school district on policy and procedures regarding the hiring of project staff; and (4) make recommendations concerning applications for project staff positions.

Data indicate that parent committees had a mean membership of 10 members, of which a mean of 9 were Indian, and a mean of 7 were women. Members were elected solely by parents at 58 percent of the projects. Well over half (62%) of the parent committees were involved with the Part A project exclusively, with the remainder being involved also with other educational programs. As required by Part A regulations, most (82%) committee members were elected, but a significant minority (16%) were volunteers.

The committees were quite active, holding a mean of 9 meetings in the last year, and most (77%) members attend regularly. The areas in which committees were most heavily involved were decisions on project goals, project budgets, and project activities, and in communicating with parents. Most (93%) had formally approved the Part A application and 96 percent were involved in monitoring and evaluation. The data also show that several project directors indicated that recommendations of the parent committee had a great deal or a moderate amount of impact on school policy-makers. Only 28 percent of project directors said the committees had little or no impact. Importantly, over three-quarters of project directors felt that the parent committee had made a difference in getting members of the Indian community or tribe to support the project.

The most important reasons given by parent committee members for Indian parents not becoming more involved in the project or in school were that their children do not want them to participate, the school discourages participation, and parents have no time or have too many other activities. However, as a result of the project, committee members report parents have taken a greater interest in the school and have become involved to a greater extent in attending school activities. Data from teachers and principals support these findings.

Parent committee members also indicated they themselves had benefitted from committee participation, most frequently indicating that they had developed more ability to function in the school and community (51%), specific skill acquisition (30%), and increased ability to help their children in school (75%). Some also indicated former committee members had gone on to other involvements with the school, but the actual number was unclear.

With regard to overall parent participation, the results were more mixed, with 37 percent of the parent committee members indicating parents were not very involved and 34 percent of the staff indicating the project was only slightly successful in involving parents as a whole. However, the committee generally indicated that the project had stimulated some or a lot more involvement by parents: in their interest (85%), attendance at functions (78%), communication with teachers (73%), relationship with school (74%), and helping their children with school work (73%). Principals (73%), staff (65%), and teachers (60%) generally agreed with this.

Parents also indicated a significant amount (34%) of involvement with the project as a staff member, volunteer, advisor, or committee member. This was corraborated by staff ratings of parent assistance to the project where parent assistance was rated a great deal or moderate by two-thirds or more of the staff in the areas of staff selecting parent committee and general project planning.

Finally, path analysis causal modeling techniques were used to assess what factors affected parents' general satisfaction with the project. Results indicate that satisfaction was most strongly influenced by parents' perceptions of the extent to which their children's cultural needs were being met. The next most important factor affecting satisfaction was the extent of communication from the project to the parents. The analysis also indicated that communication was a key factor influencing parent participation in project activities.

In summary, parent committee involvement appears quite high and parent involvement while considerably less, was also substantial. The parents and school personnel were able to cite impacts on individuals and their schools. Further, it appears that satisfaction with the project is strongly influenced by specific project activities in the area of communication.

CHAPTER 12: IMPACTS OF THE PART A PROGRAM ON SCHOOL DISTRICTS

This chapter examines the extent to which Part A projects have affected school districts with respect to the education received by Indian children. In other chapters, the immediate impacts of the Program on Indian students and their parents are described. The long term success of the Part A Program, however, may depend upon changes in the conditions under which Indian students are educated, and, consequently, in the willingness of educational institutions to change those conditions. Thus, this chapter explores several potential impacts on those school districts affected by the Part A Program.

It should be emphasized that these are largely unintended (or perhaps more accurately, not explictly stated) impacts of Part A projects. During the evaluation's design stage, the Director of the Indian Education Program within the Department of Education made it clear that he believed the most important results of the Part A Program would be systemic and attitudinal changes in local education agencies. From this perspective, which was communicated to many local projects, relatively short-term gains associated with individual students were secondary to changing the basic character of local education agencies which served large numbers of Indian students. Thus, while changes in curricula and instructional materials, employment of Indian professional staff, and the overall climate or attitude of local school districts toward Indians were rarely an explicit project objective, frequently they were consciously intended goals of key program staff. Therefore, they are a legitimate and important dimension of an evaluation of Part A Program effects.

Thus, the data in this chapter examine:

- Curriculum and instructional materials;
- Attitudes of the schools and community toward Indians;
- Employment of Indians in public schools; and
- Continuation of Part A activities in absence of federal funds.

The data in this chapter are based on interviews from the overall sample of 115 projects. The interview sources include district administrators, principals, teachers, project staffs, parent committee members, and parents.

Curriculum and Instructional Materials

American Indians often have been either neglected or inaccurately portrayed in traditional textbooks and other curriculum materials. An important part of many Part A projects, particularly those with cultural programs, has been to develop and encourage the use of materials that present an accurate and sensitive view of the history and culture of Indians and Alaska Natives. In this regard, study findings show that most tribal leaders (86%), parents of Indian children (90%), school principals (79%), and teachers (72%) supported the provision of specific instruction or activities regarding Indian history and culture.

The manner and extent to which the Part A Program has influenced public school curriculum can be examined at three levels: changes in district-wide curricula, changes in materials used within individual schools, and changes in the materials and instructional practices used within classrooms by teachers. At each of the 115 school districts visited, a senior level administrator knowledgeable about the Part A Program and its affects was interviewed; they were superintendents, assistant superintendents, or federal program coordinators. Of these administrators, 56 percent reported curriculum revisions, attributable to the Part A Program, that reflected Indian history and culture with greater accuracy and sensitivity. The data show that 82 percent of districts with large Indian enrollments (at least 220 Indian students) reported such curriculum revisions, while only 46 percent of districts with small numbers of Indian students (less than 220) reported revisions. Also, according to administrators, 66 percent of districts in metropolitan areas reported curriculum revisions, while only 60 percent of rural area districts, 52 percent of urban area districts, and 49 percent of districts on or near reservations reported curriculum revisions. Similarly, 47 percent of the administrators reported adopting more accurate and sensitive textbooks as a result of the Part A Program. No differences among districts were found by size of Indian enrollment. However, 58 percent of districts on or near reservations reported adopting more accurate and sensitive textbooks, while only 32 percent of rural districts, 42 percent of metropolitan districts, and 47 percent of urban districts did so.

These reports from district administrators were generally consistent with the information provided by members of the Indian community. Considering that in many school districts the textbooks and other curriculum materials for which there is local discretion are selected by professional educators, with little public involvement, it is noteworthy that 23 percent of the tribal or community leaders and 29 percent of the parent committee members surveyed reported that Indian community members had been involved in textbook selection. An even higher proportion of tribal or community leaders (40%) and parent committee members (39%) reported that Indian community members had a role in the selection or review of other curriculum materials. Of the parent committee members who reported Indian involvement in materials selection or review, 90 percent attributed Indian involvement in textbook selection or review in their district to the Part A projects, and 96 percent attributed Indian involvement in the selection of other curriculum materials to Part A.

At each of the districts visited, principals of schools with Indian students in the Part A Program were surveyed to assess any changes in curriculum and instruction as a result of the Part A Program. A total of 450 principals were interviewed. Most (82%) principals reported that the Part A Program had improved their curricula, and 70 percent reported that the Program had increased or improved their Indian-related resource materials. Cultural or historical materials developed or provided by the Part A projects were reported to be used by some teachers in 58 percent of the schools. Most of the schools that used Part A materials used them in social studies (86%), arts and crafts (77%), and history courses (73%), although nearly half of these schools also used the materials in literature (49%) and reading (46%) classes. In addition to developing useful materials, the Part A projects, as reported by principals, involved local Indian people or project staffs in their classes in 59 percent of the schools.

At each of the 450 schools surveyed, a sample of 1,307 teachers employed at least three years by the school district and who currently had at least two Indian students in their classes, was surveyed. These teachers were asked to report on the effects of the Part A Program on the insructional practices and curricula within their classrooms. Two-fifths (41%) of the teachers reported having made changes in their teaching approaches to accommodate Indian students. As shown in Table 12-1, the most frequent changes in instructional practices were incorporating Indian history into regular instruction (35 percent of those reported making changes) and giving Indian students more individual attention

TABLE 12-1

TYPES OF CHANGES MADE IN TEACHING APPROACH TO ACCOMMODATE INDIAN STUDENTS (N=520)

Type of Change	Percentage of Teachers* Who Reported They Made Changes
Instruction in Indian history and culture incorporated into regular instruction	35%
More attention given to individual Indian students	24
More sensitivity shown to Indian history and culture	14
Instruction tailored to each cultural group	13
More emphasis placed on "basic" academic skills	6
Separate instruction provided on Indian history and culture	6
Comparisons of Western and Indian cultures emphasized	2

*Percentages are of those teachers (41%) who answered "yes" to the general question "Over the past three years, have you made any changes in your teaching approach to accommodate Indian students?" and who also specified the type of change made.

(24%). In addition, nearly one-half (47%) of all teachers interviewed reported making changes in curriculum or classroom materials to better reflect Indian history and cultural heritage. One-third (32%) of the teachers also reported that Part A project materials were used in their classrooms. Changes in instructional practices and curricula were reported more frequently by teachers in districts with higher Indian student density (above 20%), and higher Indian enrollments (220 or more Indian students), than in districts with lower Indian student density or enrollment.

Teachers were also asked if they discussed specific classroom matters, problems, and needs with the Part A project staffs. The percentage of teachers who said they discussed each topic is presented in Table 12-2. The most frequently discussed topics were individual Indian student problems (82 percent of the teachers), Indian student attendance (75%), and tutoring needs (68%).

TABLE 12-2

TOPICS DISCUSSED BY TEACHERS WITH PART A PROJECT STAFF
(N=936)

Topics Discussed	Percentage of Teachers*
Individual Indian student problems	82%
Indian student attendance	75
Tutoring needs of Indian students	68
Indian student achievement in basic academic skills	65
Special needs of Indian students	53
Recommendations for books or other materials about Indians	42
Medical needs of Indian students	35
Changes in educational standards for Indian students	28

*The percentages listed apply to those 936 teachers who responded to the above items; 371 teachers failed to complete this questionnaire item.
Note: Due to multiple responses, percentages total more than 100%.

In summary, the Part A Program seems to have had some affect on school curricula, textbooks and classroom materials, and teaching, especially in those districts with large Indian student enrollment. Curriculum changes or textbook adoptions were reported by administrators in approximately half of the districts. Most principals indicated that the Part A Program had improved Indian-related curriculum and materials in their schools; two-fifths of the teachers reported making changes in their teaching approach to accommodate Indian students.

Attitudes of the School and Community Toward Indians

The attitudes held by school personnel and the community toward ethnic minorities can have an important impact on the quality of education received by minority children. Research has shown, for example, that teacher attitudes and behavior can affect learning in the classrooms.[1] In this section, indications of current attitudes of the community and school personnel toward Indian children and their education are examined and the effectiveness of the Part A Program in changing attitudes in the schools is explored.

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[1] See, for example, Brophy, J.E. Teacher behavior and its effects. Journal of Teacher Education, 1979, 71(6), 733-750.

Current Attitudes Toward Indians and Their Education. Parent Committee members were asked whether the attitude or sensitivity of the non-Indian community, school administrators and school staff toward Indian students had been a problem in the schools in their district. Their responses are summarized in Table 12-3.

TABLE 12-3

PARENT COMMITTEE VIEWS ON ATTITUDES AND SENSITIVITY OF THE NON-INDIAN COMMUNITY, SCHOOL ADMINISTRATORS, AND SCHOOL STAFF TOWARD INDIAN STUDENTS
(N=638)*

Groups Rated	No Problem	Somewhat of A Problem	A Major Problem	Mean**
School district administrator	83%	15%	2%	1.18
Counselors	83	14	2	1.18
School board	83	15	2	1.19
Other school staff	81	18	1	1.20
Elementary school teachers	80	20	1	1.22
Principals	80	15	6	1.26
High School/Jr. High teachers	70	28	2	1.32
Non-Indian community	67	30	4	1.37
Overall	78	19	3	1.24

*Results were weighted to make the findings statistically representative of all projects. An average of 638 out of 865 (weighted) parent commitee members responded to the items; thus the results were based upon those (74%) who responded.

**Ratings were based on a three-point Likert scale:
1 = No problem; 2 = Somewhat of a problem; and 3 = A major problem.

The majority (78%) of parent committee members thought there were no problems with the attitude or sensitivity of the groups listed. There are, however, two statistics which stand out: 34 percent said the attitudes and sensitivity of the non-Indian community toward Indian students was somewhat a problem or a major problem,[2] and 30 percent also thought high school and junior high school teacher attitudes and sensitivity towards Indian students were somewhat of a problem or a major problem in their schools.

Indian or tribal community leaders were also asked whether or not the attitudes or sensitivity of the school administration toward Indian students were a problem in their school district. Fifty-nine percent indicated there were no problems; 28 percent said there was somewhat of a problem; and 13 percent said there were major problems. They were also asked whether or not the sensitivity or attitudes of school principals or other school staff members were a problem. Fifty-three percent indicated there were no problems; 37 percent said there were some problems; and 10 percent said there were major problems. Thus, a larger percentage of Indian or tribal community leaders than parent committee members said attitudes toward Indian students were a problem.

Mean ratings of attitudes toward Indian children and their education, as rated in spring 1982 by the Part A project director, project staff, parent committee members, and a leader of the local Indian community at each of the 115 projects visited, are presented in Table 12-4. The respondents were asked to rate the attitudes of several types of school employees, the school board, and the non-Indian community toward Indians and their education, on a five point Likert scale ranging from one (Very negative) to five (Very positive).[3]

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[2] Project staffs were asked the same question displayed in Table 12-3. Similar results were obtained in that 21 percent of the project staff members thought the sensitivity of the non-Indian community and 22 percent thought the sensitivity of high school and junior high teachers was somewhat of a problem, or a major problem.

[3] Respondents rated the attitudes of school personnel and the community toward: Indians in general, special educational programs for Indian students, and the Part A Program. These ratings were averaged for an overall score representing attitudes toward Indians and their education.

TABLE 12-4

COMPOSITE RATINGS OF THE ATTITUDES OF THE EDUCATION COMMUNITY TOWARD INDIANS, THE INDIAN EDUCATION PROJECT, AND FEDERAL FUNDING OF EDUCATIONAL PROGRAMS FOR INDIANS AS JUDGED BY COMMUNITY LEADERS, PARENT COMMITTEES, PROJECT STAFF AND PROJECT DIRECTORS*

	Respondents			
Groups Rated	Community (Tribal) Leaders** (N=102)	Parent Committee Members** (N=290)	Project Staffs (N=413)	Project Directors** (N=114)
School district administration	3.57	4.04	4.24	4.53
Principals	3.78	4.04	4.30	4.36
School board	3.68	3.75	4.02	4.02
Secondary teachers	3.68	3.75	4.02	4.02
Elementary teachers	4.07	4.08	4.29	4.38
Counselors	3.88	4.18	4.39	4.43
Other school staff	3.91	3.82	4.16	4.23
Non-Indian community	2.86	3.12	3.42	3.51

*Ratings were based on a five point Likert scale: 1 = Very negative, 2 = Moderately negative, 3 = Indifferent, 4 = Moderately positive, and 5 = Very positive.

**Results were weighted to make the findings statistically representative of all projects.

As demonstrated in Table 12-4, the attitudes of school personnel and the school board were generally judged to be moderately positive or better. By contrast, the attitudes of the non-Indian community were generally judged at a level approaching indifference. Persons within the school system were thus seen as having attitudes that could be of benefit to Indian children in their educational experiences, whereas the non-Indian community was seen as displaying no special concern or even hostility toward Indian children and their education. When these were analyzed in terms of Indian student density, size of Indian student enrollment, and school district location, only relatively minor differences were found.[4]

A comparison of ratings across respondent groups indicates that the ratings given by the Indian community/tribal leaders and parent committee members are generally parallel, and are lower than those by the project staffs and project directors. These differences are generally not large and may simply reflect their position outside or independent of the school system. Parents were asked an abbreviated version of the question summarized in Table 12-4. They were asked to rate the attitude of principals, teachers, counselors, and other school staff toward Indian students in general on a three-point Likert scale: 1 = Generally insensitive; 2 = Don't care one way or the other; and 3 = Generally sensitive. The means calculated from the parent responses (N=984) ranged from 2.60 for teachers to 2.75 for counselors (principals were 2.61 and other staff were 2.69). Thus parents, overall, rated school personnel positively with respect to their perceptions of the attitude of these individuals toward Indian children.

The Influence of the Part A Program on Current Attitudes Toward Indians and Their Education. No adequate measure of school/community attitudes toward Indians and their education, at the start of the Part A Program, was available at the school districts visited, and study resources did not permit the analyses of secondary source material necessary to develop such pre-project measures. To obtain a rough indication of the influence of Part A on current attitudes, diverse respondents were asked whether, in the last three years, the Part A projects had changed the attitudes of school personnel and the non-Indian community; parent committee members, project staffs, project directors, and leaders in the Indian comunity were probed. Project directors and staffs were slightly more prone and Indian community leaders slightly less prone than were parents to indicate Part A projects had influenced school or community attitudes.

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[4] These comparisons were made using the ratings by parent committee members. Analyses by school district location showed the mean rating of school personnel and the non-Indian community in other rural areas to be higher than the overall mean, whereas comparable ratings were found for the other school district locations (on or near reservation, urban non-metropolitan, and metropolitan). When districts varying in Indian student density were compared, school personnel and the non-Indian community in districts with the lowest density (.01% to 5%) received the lowest ratings. However, none of the overall mean ratings for districts in different locations or Indian student density categories varied by more than 0.32 from the overall rating of 3.19 for the non-Indian community or 4.12 for school personnel. Ratings also did not vary significantly with the size of Indian student enrollment.

Parent committee members were likely to have provided the most valid responses, since they are Indians who are directly affected by the attitudes, are quite familiar with Part A projects, yet have no employment-related biases.[5] Of the parent committee members surveyed, slightly over half (53%) indicated that the Part A projects had changed the attitudes held by other groups. Over three-fifths of the parent committee members from districts on or near reservations (61%) or in metropolitan areas (69%) responded positively, while fewer than half from urban areas (48%) or other rural areas (37%) did so. Changes in attitudes due to Part A were also reported more often in districts having a relatively low Indian student density; only 28 percent of parent committee members in the districts with the highest Indian student density (70 percent or more of students are Indian) indicated a change in attitudes due to Part A, whereas this was true of 69 percent of parent committee members in districts where the proportion of Indians to other students was quite low (5 percent or less).

Further examination revealed that well over half of the parent committee members felt that the Part A project promoted more consultation between Indians and the school administration and more meetings between Indian parents and teachers; made tribal leaders more informed and Indians more welcome at school; and encouraged more parent and student involvement in the schools and increased Indian parent support of the school system as a whole (see Table 12-5).

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[5] A sample of two to three active members of the Part A parent committee, typically committee officers, was selected as respondents; data were obtained from 290 parent committee members overall.

TABLE 12-5

CHANGES IN SCHOOL DISTRICTS RESULTING FROM PART A PROJECTS (AS REPORTED BY PARENT COMMITTEE) (N=290)*

		Percentage of Parent Committee Members		
Change Reported	Mean Rating**	Yes, A lot	Yes, Somewhat	No Change
Indian community feels more welcome at school	2.18	31%	56%	13%
Indian leaders more informed of school district activities involving Indians	2.15	37	41	22
Indian parents more supportive of the school system	2.15	31	53	16
Indians consulted more by school administrators	2.13	35	42	22
Indian students and parents more involved in schools	2.01	23	64	13
Teachers meet more frequently with Indian parents	2.00	27	46	27

*The data were weighted to make the findings statistically representative of parent committees found in all projects.

**Changes were rated on a three-point scale: 1=No change; 2=Yes, somewhat; and 3=Yes, a lot.

Principals in the schools served by Part A projects also provided information regarding whether the project had influenced attitudes. Specifically, principals were asked whether or not the projects had affected the relationships between Indian students and non-Indian students in their schools. Forty-nine percent of the principals (N=450) indicated no change; 1 percent said relations had deteriorated; 36 percent said relationships had improved somewhat; and 14 percent reported relationships had greatly improved.

In short, the indications are that the Part A projects have had some influence on school attitudes regarding Indians and their education within many school districts, but little or no influence within many others. Slightly more than half of the parent committee members contacted reported that their Part A projects had changed attitudes in their districts, and a substantial percentage reported some or a lot of change with respect to various indicators of the relations between the Indian community and schools.

Employment of Indians in Public Schools

Although not explicitly intended, another potentially indirect but important impact of the Part A Program is the increased employment of Indians in public school districts. Changes in the level of employment of American Indians in public schools, whether related to Part A or not, is a topic of considerable interest to the Indian community and to policymakers in the Department of Education and Congress. To investigate the levels and trends in employment, analyses were made using national-level data published by the U.S. Equal Employment Opportunities Commission (EEOC), as well as local-level data on the national sample of Part A school districts selected for this study.

All school districts are required by the EEOC to maintain up-to-date figures on the employment of minorities. National estimates of employment levels are made by EEOC in its annual survey[6] by combining a census of employment in larger districts [defined as having more than 1,800 students or 100 full-time equivalent (FTE) employees] with weighted data from smaller districts (fewer than 1,800 students or 100 FTE employees). Such districts are sampled annually at varying rates according to their size; thus, the specific districts included in this sample change from year to year.

The national-level data, examined first, are presented in Table 12-6.[7] It is important to note that these results reflect the hiring of Indians by all public

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[6] The annual employment surveys of EEOC are entitled Minorities and Women in Public Elementary and Secondary Schools.

[7] The employment figures presented here cover the years 1975-79, with the exception of 1977. The 1979 report is the most recent annual survey published. The 1977 survey was not completed. The surveys done by EEOC in 1973 and 1974 were not used in this study because the definitions of "American Indian" and "Hispanic" used during these two years were changed in 1975; 1973 is the first year for which any national data were available.

TABLE 12-6

NUMBER OF AMERICAN INDIANS/ALASKA NATIVES EMPLOYED IN PUBLIC SCHOOLS BY OCCUPATION (1975-1979)

	1975	1976	1978	1979	Average (1975-1979)
Total Number Employed	12,722	14,428	15,170	12,670	13,760
Change from previous year	--	+1,706	+742	-2,500	-14
Percentage of all public school employees	(0.4%)	(0.4%)	(0.5%)	(0.4%)	(0.4%)
Teachers	4,611	4,693	5,291	4,276	4,718
Change from previous year	--	+82	+598	-1,015	-112
Percentage of all public school teachers	(0.2%)	(0.2%)	(0.3%)	(0.2%)	(0.2%)
Teacher Aides	2,516	3,321	3,095	2,398	2,833
Change from previous year	--	+805	-226	-697	-118
Percentage of all public school teacher aides	(1.1%)	(1.5%)	(1.4%)	(1.0%)	(1.3%)
Administrators	162	229	208	227	207
Change from previous year	--	+67	-21	+19	+22
Percentage of all public school administrators	(0.4%)	(0.5%)	(0.5%)	(0.5%)	(0.5%)
Principals	237	308	270	236	225
Change from previous year	--	+71	-38	-34	0
Percentage of all public school principals	(0.3%)	(0.4%)	(0.4%)	(0.4%)	(0.4%)

Source: Annual reports issued by the Equal Employment Opportunity Commission, entitled Minorities and Women in Public Elementary and Secondary School

school districts, not just those receiving Part A funds. Based upon these results, the national employment picture from 1975 to 1979 for Indians in the public schools can be summarized as follows:

- Indians were underrepresented in most educational professions; the proportion of Indians employed within public school districts as a proportion of all employees was much smaller (0.4%) than the proportion of Indians in the total student enrollment (0.8%) (NCES 1981);
- Few Indian administrators or principals were employed in the public schools; however; Indian administrators and principals represent a larger percentage of all administrators and principals than Indian teachers represent of all teachers; and
- Although the overall number of Indians, Indian teachers, and teacher aides generally increased from 1975 to 1978, an apparent drop in these numbers between 1978 and 1979 brought the employment levels of Indians overall, and of Indian teachers and teacher aides specifically, to slightly below the 1975 level.[8]

The analysis of national-level data revealed no apparent change in the late 1970s in the levels of employment of Indians in public schools. A more direct examination of the effects of the Part A Program on employment was made by accessing employment data for the school districts in the study sample, all of which receive Part A funds. These data were collected from EEOC files for the years 1973 to 1979, and from school records for 1981. Analyses were made of employment trends from 1973 to 1981.[9] Actual levels of employment levels in 1981 were also analyzed. Teachers and aides were the focus of these analyses because they have the greatest contact with children for instructional purposes and are generally the most numerous of the different types of school employees. Because of gaps in the EEOC data and in records maintained in local school districts, it was possible to follow trends based on four yearly data points for only 65 of the 115 potential districts.[10]

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[8] No explanation is given in the EEOC report for the decrease in numbers from 1978 to 1979.

[9] In analyzing the trend data, four data points from the years 1973 to 1981 were established for each district so that a general trend of employment practices for each district could be approximated. These data points included 1973 (or 1974, if 1973 data were unavailable), 1975, the year with the highest total of teachers and aides between 1976 and 1978, and 1981.

Overall, the study's survey of project records showed that in 24 (37%) of the 65 school districts there was an upward trend in the employment of Indians in that they had at least three more Indian teachers and teacher aides in 1981 than in 1973. By contrast, 17 percent of these districts employed no Indian teachers or aides at all. In the remaining districts, 11 percent showed a decline (at least three fewer Indian teachers and aides in 1981 than in 1973), 22 percent showed an upward, then downward trend, and 13 percent employed a roughly equal number of Indian teachers and aides throughout the 1973-81 period. In the 24 districts with an upward trend, the increased employment in absolute numbers of Indian teachers and aides was generally modest.

Data concerning the number of Indian teachers and teacher aides employed in 1981 by local school districts were available for 104 of the 115 districts included in the Part A impact evaluation sample (see Table 12-7). Overall, districts reported employing a median of two Indian teachers and two Indian teacher aides.[11] Over one-fourth (29%) of the districts employed no Indian teachers or aides. The median number of Indian non-teaching professional staff (e.g., principals, guidance counselors) working in the districts in 1981 was .4, or an average of less than one half person per district in the sample. Also, 57 percent of those districts reported no Indian non-teaching professionals.

An assessment was also made of the ratio of Indian teachers and aides to Indian students. Excluding the 29 percent of districts with no Indian teachers or aides, there was a median of 1.8 Indian teachers per 100 Indian students, and a median of 2.0 Indian teacher aides per 100 Indian students. The ratios would have even been lower if the districts with no Indian teachers or aides were included. These data contrast with the national ratios of 4.8 teachers per 100 students for grades K-6, and 5.9 teachers per 100 students for grades 7-12 (NCES 1980). The ratios indicate that, whereas teachers are generally available as role models to all students, Indian teachers are less frequently available as role models to Indian children.

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[10] Data for 50 districts were incomplete since smaller school districts are sampled by EEOC in their annual survey of employment in the public schools.

[11] Medians are reported throughout this section because of extremely skewed distributions. The range was 0-440 teachers and 0-149 aides.

TABLE 12-7

INDIAN TEACHERS AND TEACHER AIDES EMPLOYED BY PART A SCHOOL DISTRICTS IN 1981 BY LOCATION*

	On or Near Reservation	Other Rural Areas	Urban, non-Metropolitan	Metropolitan	Overall
Median number of teachers*	1.6	2.3	1.7	5.5	1.9
Median number of teacher aides*	3.4	1.1	0.6	1.7	2.1
Median number of total instructors*	5.5	4.1	2.1	7.1	4.5

*Data are from 104 of the 115 school districts included in the evaluation.

Low Indian student "density," a median of 8 percent in the districts in the sample, must be considered when interpreting the student-teacher ratios and employment levels. In practical terms, this low density means that Indian children are typically a distinct racial and cultural minority within their districts and classrooms. When this is considered together with the small numbers of Indian teachers employed in most districts, Indian children typically are in a class consisting primarily of non-Indian children and a non-Indian teacher.

In summary, the Part A Program appears to have had little impact on Indian employment levels. Of districts receiving Part A funds, about one-third increased their employment of Indians from 1973 to 1981; in some districts, employment of Indians declined. It should be noted, however, that increased employment of Indians in the public schools is neither a stated objective of the

Part A Program, nor was it cited by any of the school districts visited as a formal objective of their local projects.

Continuation of Part A Activities in the Absence of Federal Funds

Although Part A was not established as a program to develop school district capacities for serving Indian students,[12] it was decided that obtaining some indication of the likelihood that local districts would continue Part A activities in the absence of federal funds would be useful. Thus, in the fall of 1981, district administrators at the visited sites were asked: "If, for any reason, your Indian education project were to lose its funding, would your school district continue any part of the project by funding it out of its own financial resources?" The respondents were superintendents and assistant superintendents who were knowledgeable about Part A project activities. Forty-two percent (42%) of the administrators responded "no," their district would not continue project activities with its own resources. Part A project directors were asked the same question, and the majority (62%) of them indicated they did not think their district would continue project activities without special funding. No differences on this question were found by project location. However, when the data were analyzed by grant size, it was found that none of the directors of the smaller projects (under $10,000) said that project activities would continue. On the other hand, directors of two-thirds (67%) of the projects receiving grants between $50,000 - $100,000 said activities would continue.

Across all projects, the 38 percent of district administrators who said they did expect some continuation would occur were also asked what components of the project they thought would be sustained. Of these administrators, 27 percent said it would be tutoring or academic components, 17 percent said counseling and career enhancement, 13 percent said they would keep classroom aides and other staff members, 11 percent said they would attempt to incorporate the whole program or as much as possible, and 17 percent simply said they would try to provide some funding. Only 15 percent said they would keep special culturally related activities, although Part A project directors were more optimistic in this regard (26% indicated they thought cultural arts and crafts activities, for example, would be continued).

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[12] Rather, it was conceived as a service program; districts have never been asked for a commitment to someday assume fiscal responsibility for Part A-sponsored activities.

Summary

Although not stated as objectives of the Part A Program or of individual projects, an investigation was made of the extent to which the Program may have influenced school curricula and classroom teaching, the attitudes of school personnel, and the employment of Indians by public school. In roughly half of the school districts, senior administrators reported curriculum revisions and/or textbook adoptions that reflected Indian history and culture with greater accuracy and sensitivity that had occurred due to their Part A projects. Principals in most (82%) of the surveyed schools reported that the Part A Program had improved their schools' curricula, and 58 percent reported that Part A project materials were used by some teachers within their schools. Similarly, many teachers indicated changes had occurred. Over two-fifths (41%) of the regular classroom teachers surveyed reported changing their approaches to accommodate Indian students, most frequently by incorporating Indian history into regular instruction and giving students more individual attention. Most teachers also consulted with Part A project staffs in a variety of areas concerning Indian students and their education. In sum, the Part A Program appears to have influenced classroom instruction for Indian students in many school districts, even though this was not an explicit objective of the Program.

The analyses of attitudes toward Indians and their education, as reported by parent committee members, Indian community leaders, project directors, and project staffs, indicate school personnel have moderately positive attitudes toward Indians and their education, while the non-Indian community is generally indifferent. Many of these respondents indicated further that the Part A Program had improved the attitudes of school personel and the non-Indian community toward Indians and their education. Over half of the parent committee members felt that this was the case, and an even larger majority reported the Part A projects in their districts improved the relationship between the Indian community and the schools.

With respect to the employment of Indians, the Program seems to have had little or no effect. Few Indians were employed by public school districts as administrators, teachers, or aides in the mid-1970s, and no changes seem to have occurred by 1981. Neither the analyses of national-level data nor that from the projects visited suggest an impact on public school employment due to the Part A Program. While the number of Indians employed increased in some districts, there were decreases in others. Overall, there was no substantial change.

The Part A Program, it appears, has had some modest impacts on classroom-level curricula and teaching practices affecting Indian students and on the attitudes and relations of public schools with respect to Indian students and their community; the indications are that some influence in these areas has been felt in most school districts. As far as continuation of activities is concerned in the absence of federal funds, responses of district administrators and project directors were mixed. It appears that some activities would continue, although the great majority would be dropped.

CHAPTER 13: SMALL PROJECTS FUNDED BY PART A

When considering federally-funded educational programs, the tendency is to think of large projects serving hundreds of students and costing tens of thousands of dollars. However, as previously discussed, the Part A Program largely consists of relatively small projects, with the median project budget in the 1981-82 school year being $26,450. Well below the median, there is a group of Part A projects which might be considered "very small," and they were the focus of a substudy which is summarized in this chapter. For this study, the "very small" projects were defined as serving fewer than 30 students and operating on $5,000 or less per year in federal funds. Relatively little has been known about the characteristics of such projects and the kinds of impact which they can have.

This substudy began with a review of available data on the 1,085 public school districts which received funds in FY 80 under Part A of the Indian Education Act which revealed 98 projects which met the study definition of very small projects. Of these, 29 projects had been operating continuously for three or more years in the 1981-82 school year, and thus were established well enough to permit a reasonable assessment of their activities.

The data collection for this study of very small projects consisted of three stages. First, a review was made of the applications made by the 29 projects to the Indian Education Program for Part A funding over the past three years. In addition, the narrative portions of the applications were reviewed both for contextual information on the community and school environment, and for indications of the extent to which the project had been accomplishing its objectives in previous years.

The second stage in the data collection process consisted of telephone interviews conducted with the local project administrators and the parent committee chairpersons at each of the 29 projects. Despite repeated attempts, it was impossible to contact anyone willing to discuss the project at two of the sites.

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During the interviews, the respondents were asked to provide descriptive and impact information on their projects, and in each case where an impact was reported, the interviewee was requested to send documentary evidence, such as evaluations, grade reports, or other materials, to confirm the impact.

The third stage in the data collection consisted of site visits to selected very small projects in order to verify the reported project impacts. During this examination, particular attention was paid to indications of types of impacts which could not easily be verified through documents. These included, for example, impacts on school climate, community and/or parent involvement, and curriculum, since these would most appropriately be verified through first-hand observation. The number of projects which could be visited was, however, constrained by the resources available for these visits. Only three of the very small projects were visited, each by a single data collector for one to two days.

As indicated earlier, 29 projects met the very small projects criteria. In Table 13-1, the specific numbers of students served and the funding levels for school year 1981-82 for each project are given based on project applications.

The applications were also examined to identify the objectives of projects and the activities proposed to accomplish these objectives. It was found that project objectives and the proposed activities to address these objectives focused, in almost all of the cases, on only one or two service areas. That is, 90 percent of the projects focused their efforts on only one or two of the five areas explicitly permitted by Part A legislation and regulation (i.e., cultural instruction, academic tutoring, expenditures for school-related supplies, counseling, and home-school liaison) and in 14 (48%) of the 29 cases, the projects elected to focus their efforts on only one. A breakdown of the services reported by each project in their applications is given in Table 13-2.

The overwhelming majority of projects cited some form of cultural instruction or activity as a primary focus of their project (21 of the 29 projects). Ten projects included academic tutoring in English or mathematics among their objectives, and only eight projects had the provision of school-related expenses as an objective. With respect to counseling and home-school liaison, the

TABLE 13-1

SCHOOL YEAR 1981-82 GRANT AMOUNT AND NUMBER OF INDIAN STUDENTS FOR PART A: VERY SMALL PROJECTS FUNDED FOR THREE CONSECUTIVE YEARS (1979, 1980 and 1981)

Project	Funding for School Year 1981-82 (to nearest $500)	Number of Students Served in School Year 1981-82
1.	$ 8,500	38
2.	12,000	25
3.	4,500	20
4.	4,000	29
5.	1,500	11
6.	2,500	14
7.	4,000	29
8.	4,000	20
9.	5,000	26
10.	7,000	34
11.	6,000	29
12.	10,000	49
13.	4,500	36
14.	6,000	29
15.	7,500	38
16.	5,500	30
17.	3,000	11
18.	4,000	25
19.	4,000	21
20.	4,500	29
21.	4,000	22
22.	2,000	8
23.	3,500	16
24.	2,000	12
25.	5,000	23
26.	6,000	29
27.	3,000	21
28.	5,000	28
29.	5,000	30

In school year 1981-82, four projects exceeded the very small projects criteria. Since in prior years they met the criteria and they were still quite small, they continued to be included in the substudy.

TABLE 13-2

TARGETED SERVICE AREAS CITED IN SCHOOL YEAR 1981-82 APPLICATIONS OF VERY SMALL PART A PROJECTS FUNDED FOR THREE CONSECUTIVE YEARS (1979, 1980, 1981)

PROJECT	SERVICE AREAS				
	Cultural	Tutoring	School Related Expenses	Counseling	Home-School Liaison
1.					x
2.	x	x			x
3.	x			x	
4.	x		x		
5.	x			x	
6.	x				
7.	x		x		
8.			x		
9.				x	x
10.	x				x
11.	x	x	x		
12.	x				
13.		x	x		
14.	x				
15.			x		
16.	x		x		
17.	x	x			
18.		x			
19.	x				
20.		x			
21.		x			
22.	x				
23.	x				
24.	x				
25.	x		x		
26.	x				
27.	x	x		x	
28.	x	x			
29.	x	x			
Total	21	10	8	4	4

information on Table 13-2 is somewhat misleading. The table accurately reflects the number of projects which had counseling and home-school liaison components, as a formal objective, but it does not accurately reflect the number of projects which actually provide counseling or home-school liaison services. Comments provided in various narrative sections of the applications and in accompanying materials indicate that many of the projects provide such services informally, either through routine interactions between project staff and students and parents or through the parent committee.

Regarding project budgets and resources, 19 projects included some staff as a budget item, but only five projects budgeted for administrative staff. In each of the other 24 projects, project administration was carried out at no cost to the project either by the chairperson of the parent committee, a school principal, the superintendent, or another member of the school district staff. The remaining budgeted staff time went for tutors, resource people and other instructional personnel. In the vast majority of cases, these individuals were paid only part-time, or on a day-by-day consultant basis. The fact that ten of the 29 projects did not budget for any staff time whatsoever, plus various comments scattered throughout all 29 applications, indicated that there was a high degree of volunteerism involved in staffing the projects -- both in terms of instructional personnel and administrators.[1] This tendency was generally confirmed during the telephone interviews.

The principal purpose of the telephone interviews was to provide preliminary information on the areas in which projects had an impact and to confirm the previously obtained file data. After confirming the descriptive information available on the project, respondents[2] were asked to provide information on project effects on students, parents, the school district, and the Indian community, and to indicate the kinds of evidence which they had to support their reports of impact. Respondents were queried in an open-ended fashion, with responses coded into categories of impact after the survey was completed. For every area of impact reported by local personnel, a copy of supporting evidence in the form of evaluations, grade reports, attendance records, etc., was requested. However, despite follow-up communications, several of the projects did not send the requested information. Table 13-3 provides a listing of the areas of impact reported by each project, and an indication of whether credible documentation of this impact was provided (X indicates that an impact was reported and documented, 0 indicates that an impact was reported but not documented, and - indicates that no report of an impact was made).

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[1] The term "volunteerism" is used here to include paid school and district staff members who either work overtime to staff the Part A project at no cost, or as part of their school duties but at no cost to the project, as well as individuals who staff the project at no cost and who are not otherwise paid for services to the school or district.

As indicated on the table, documented evidence was available for reported impacts from 17 (63%) of the 27 responding projects, with credible supporting evidence in two or more impact areas provided by over one-third (37%) of the projects. The most frequently reported areas of documented impact were: student pride or self concept; school grades; and parent involvement. If reported but unsubstantiated impacts are included, the appearance of project results increases considerably, and improvement in the support or involvement of the school district in meeting special educational needs of Indian students emerges as being perceived as an impact in over half (52%) of the projects. In addition, all 27 projects which responded did report impact in one or more areas. Of some interest may be that documentation was almost always provided (15 out of 19 times) for the three impact areas where "hard" data may be reasonably expected, but much less often provided (19 out of 52 items) for the three "softer," more subjective, more difficult-to-document areas.

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[2] Respondents were: project administrators (24), parent committee chairpersons (17), superintendents (3), and others (4).

TABLE 13-3

PROJECT IMPACTS BASED ON TELEPHONE INTERVIEWS AND FOLLOW-UP DOCUMENTATION AT "VERY SMALL" PART A PROJECTS

Project	Lower Dropout	Improved Attendance	Better Grades	Greater Parent Involvement	Student Pride/Better Self-Concept	District/ School Support/ Involvement
1.	X	X	-	X	-	0
2.	-	-	X	-	X	0
3.	-	-	-	0	X	-
4.	-	-	-	X	X	X
5.	0	0	0	-	-	-
6.	-	-	-	X	0	-
7.	X	-	-	0	-	-
8.	-	-	-	0	-	-
9.	-	-	-	0	0	-
10.	-	X	-	-	X	X
11.	X	-	-	-	X	0
12.	-	-	-	0	0	-
13.	-	-	-	-	0	0
14.	-	-	X	-	0	-
15.	0	-	-	X	X	X
16.	-	X	-	0	-	-
17.	Respondents Unavailable					
18.	-	-	X	0	-	0
19.	-	-	-	0	0	-
20.	-	X	X	0	-	0
21.	-	-	-	0	0	-
22.	-	-	-	0	0	-
23.	-	-	-	0	0	0
24.	-	-	-	0	0	-
25.	-	-	-	X	0	0
26.	Respondents Unavailable					
27.	-	X	X	-	-	0
28.	-	-	X	-	X	X
29.	-	-	X	X	X	X
Documented Impact No. (%)	3 (11)	5 (19)	7 (26)	6 (22)	8 (30)	5 (19)
Documented and Undocumented Impact No. (%)	5 (19)	6 (22)	8 (30)	19 (70)	19 (70)	14 (52)

KEY:
X = impact reported and documented
0 = impact reported but not documented
- = impact not reported

Results of Site Visits

To investigate further the potential impacts of very small projects, visits were made to three of the projects in the late spring of 1982. The purpose of the visits was to verify the previously collected information, to identify additional impacts (if any), and to prepare a brief qualitative (case type) description of the project. The visits were for up to two days and conducted by senior level American Indian educators, knowledgeable of Part A and the region being served, but not a member of the local community.

As indicated in Table 13-3, each of the selected projects had provided indications of impacts during the telephone interviews, although each had a somewhat different mix of program activities. Each project was from a different region of the country, but each was in a small school district serving a rural area.[3] The largest school district of the three had 30 Indian students and the smallest had 21; the largest Part A grant amount was $5,237 and the smallest $3,218. Overall, they were judged to be reasonably representative of the projects for which impacts had been documented during the telephone survey phase.

Brief descriptions of the three projects are provided below.

Site No. 1

This project served 28 Indian students in grades K-12, out of a total of 335 students in the district. The project's objectives and activities focused on providing cultural instruction for all of the Indian students and academic tutoring for 15 Indian students who were receiving an overall average grade of below C. The project received $4,999 in Part A funds for the 1981-82 school year. Of this total, $3,833 was spent on personnel and the rest on supplies, local travel, and speakers for cultural events and assemblies. The personnel costs were for the tutor who provided assistance to the Indian students identified as needing help. The tutor was a former project participant employed on a part-time basis.

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[3] The projects were located, one each, in the Northeast, Northwest, and Oklahoma.

Elementary school students were provided cultural awareness instruction through structured lessons on Indian history, using books, films, school assemblies and field trips. Secondary school students were provided nine culturally oriented youth meetings throughout the school year. In addition, they were required to prepare a paper on their family history which, when completed, was made available for presentation at parent committee meetings.

Some Indian parents were highly involved in the project, and the parent committee was active in assisting the project staff to carry out project activities. All of the parents listed in the project application as belonging to the parent committee attended the meetings regularly; but it was a minority of the parents which did most of the work.

The school district administration had a very cooperative relationship with the parent committee and the project tutor. It is a very small school and run very informally. The school superintendent has made a presentation to the school board on the project, using slides and tapes to make certain that the board knew exactly what was happening in the project and with the federal funds. The superintendent also has visited the tribal center of the nearby reservation to learn about ongoing projects, and is generally very supportive of tribal activities. The principal of the school is not active in the project, but did conduct two evaluations of the project during the 1981-82 school year, which indicated project objectives were being accomplished.

Regarding the objective of increasing the cultural knowledge and awareness of Indian students, persons contacted during the visit spoke positively about the culturally related activities provided through the project. Regarding academic achievement, evidence was provided indicating that the grade levels of some tutored students have increased as a result of the assistance provided by the project tutor. Of the students receiving below a C average before tutoring, 35 percent have raised their grades to C or above. Further, more Indian students have gone on to college since the district has had the Indian education project than ever before. At the time of the site visit, six former students were enrolled in a college or university. One former student in the Indian education project will graduate in 1982 as an honors student and plans to attend the state technological university to pursue a career in medicine. Though no "hard" evidence was available, people familiar with the project appear to believe sincerely that increased college attendance is due to the support and activities available to students through the Part A project.

Site No. 2

This project served 30 Indian students in grades K-12 in a school district with a total of 2,925 students. During the school year the project provided tutoring services; it also provided a one-week summer program focused on cultural activities. The project received a total of $5,237 in Part A funds for the 1981-82 school year. Of this amount, approximately $3,300 was spent on personnel, with the rest expended on local travel, supplies, and guest speakers. The only regularly paid staff member was a part-time tutor, although a number of resource people were paid small fees and expenses to participate in the summer cultural program. There were also approximately ten unpaid volunteers involved in running the summer cultural program. These volunteers were primarily teachers and parents. The project director was a school principal who received no direct support from the Part A grant.

During the 1981-82 school year the tutor worked with 11 students. These students were in elementary and secondary grade levels and had problems which included speech defects, bad study habits, and problems with algebra. The tutor, a grade school learning disabilities teacher, received some assistance from another person to deal with the algebra problems. A unique feature of this tutoring program was that the tutor went to the home of the student after school hours or the student came to her home. Typically, the student, tutor, and parents were all involved in the learning process. Students, parents and the tutor expressed satisfaction with this arrangement.

In the summer of 1981, almost all 30 students participated in the week-long summer cultural program. As in other years, activities were scheduled between the hours of 9 and 12 each morning. During the week, the students learned about Indian history and culture, and participated in several arts and crafts activities. These activities included beadwork, painting, teepee raising, cooking, and dancing, and were held in the state regional museum. Because the facilities of the museum are provided to the project free-of-charge, non-Indian students as well as Indian students are allowed to participate. Each year the museum has provided space and some materials, and the museum's director has assisted the project in locating and obtaining services of resource people in the Indian communities throughout the state.

According to the project staff and parent committee chairperson, parents are extensively involved in all facets of the project. The project director stated that they had trouble getting people to attend parent committee meetings, but that approximately five or six parents regularly attended each monthly meeting. The recommendations and questions of the parents regarding the project, or the school system in general, are transmitted to the superintendent and the school board through the project director. The superintendent and the school district staff were reported to be very supportive of the project.

With respect to project results, students, parents, and the tutor indicated that the tutoring activities were quite successful and that student classroom grades had improved. On one report card shown to the researcher, for example, the grades of the student had changed from Ds to Bs over the course of the year. This was attributed by everyone involved to project tutoring.

It was more difficult to evaluate the impact of the cultural program. However, there were at least two tangible consequences. First, the students had beadwork and paintings in which they took a great deal of pride; and second, the students knew a number of facts about Indians they had learned during the week. In addition, there was a consensus among school officials and parents that the project has increased the involvement of the Indian and non-Indian local communities in the school.

Site No. 3

This project served 21 Indian students in grades K-12 in a school district with a total enrollment of 1,471 students. The project received $3,218 in Part A funds and $2,532 in Johnson O'Malley funds, for a total of $5,750. Each income source was accounted for separately, with reports sent to each funding agency showing how the funds from the agency were spent, but programmatically the funds were combined. The school district provided office supplies, support, and working space for a tutor, as well as the services of a project director. Federal funds were used primarily to pay for a part-time tutor, with some funds also used for local travel and supplies.

The predominant activity of the project was tutoring, for which a half-time tutor was employed. The tutor often worked five to ten additional hours each week at no pay in order to maintain contact with parents and with the teachers of the students, who attend four different schools. A weekly schedule was arranged to provide the sort of tutorial assistance required for each student. In the 1981-82 school year, tutoring was actually provided to 13 Indian students. The tutor worked with these students individually or in small groups, as needed. As time permitted, students were given some exposure to the culture and history of their own and other tribes. Cultural instruction, however, was minimal. The project also has sponsored one short field trip in the area each year.

The project's parent committee consisted of five persons. The most active members were the school district superintendent, an Indian parent employed at the tribal office, and the tribe's community field representative. The other two members are Indian parents who attended meetings infrequently. There has been a great deal of cooperation between the tribe and the school superintendent, who often pays informal visits to the tribal office and attends meetings with officials of the Tribal Council concerning Indian education. The school board, however, has never met with the tribal officials.

Findings from the past two years' evaluations, one conducted by a third party and the other by the district's special education coordinator, indicate that the project has been quite successful. Regarding academic achievement, the most recent evaluation stated that "tutoring was generally quite successful." The project's objectives with respect to academic achievement for the year had been that 90 percent of the students pass all subjects and 25 percent of the students maintain at least a B average; they were both exceeded. No student received a final grade of F in any subject, and 71 percent of the students achieved a final grade of B or better.

The project was also successful in achieving its objective for student attendance, which was that "90 percent of the students will maintain at least an 85 percent attendance rate." The evaluation showed that "86 percent of all students met this criterion." The three students who did not meet this criterion are reported to have dropped out of school because they were "extremely sensitive to local stereotypes among some community members and students about [their tribe] and Indians in general." The evaluation report states that this issue had been "discussed at length" with school officials, and that in-service training for teachers and increased exposure of other students and the community to the tribe and reservation would be attempted.

Informal discussions with parents and the tribal council confirmed the findings of the evaluations. Parents also indicated they were well satisfied with the project. The Tribal Council reported that, compared to twenty years ago, there has been much improvement in racial relations between Indians and whites in town -- blatant racial discrimination has been replaced by stereotyped comments by whites against Indians and by indifference by a majority of the community toward Indians. They attribute some of the improvement to the project.

Conclusions

Among the questions which arise frequently in connection with very small projects are: what types of project activities can be carried out with such low levels of funding, and what, if any, real impact can such projects have on students, parents, schools or their communities?

Among the findings of this substudy was that very small projects in the Part A Program tend to focus on a very limited set of activities, often centering around a single type of service. Related to this, the study shows that for the most part, projects concentrated their use of federal funds on actual services to the students; where salaries were paid, they went to instructional staff rather than administrative staff. There also was a rather high level of volunteerism on the part of school district administrative and instructional staff, as well as parents of Indian students and other members of the community.

Regarding impact, the data suggest that worthwhile results can occur from such small expenditures of federal funds. It appears that these funds often generate volunteer or non-paid-for services which increase the overall services available to students. Further, almost two-thirds (63%) of the projects were able to provide credible documented evidence of impact in at least one of the five service areas. Since documentation in a small project is often difficult, and most of the projects not providing evidence (another 31%) did indicate impact, this suggests that the projects were generally having a positive impact on Indian students. It also suggests they were making wise use of their resources by only focusing on one or two service areas. While the available evidence does not permit establishing impact results for all projects, the evidence, which the case studies bear out, does indicate positive results relative to resources available in a majority of the small projects.

CHAPTER 14: STUDY SUMMARY AND CONCLUSIONS

The study's purpose was to evaluate the operation and effectiveness of Part A of the Indian Education Act for meeting the special educational and culturally related needs of Indian students. The Indian Education Act became law on June 23, 1972, as Title IV, P.L. 92-318, in recognition of the special educational needs of American Indians (including Alaska Natives). Part A is that part of the Act providing grants to public school districts enrolling American Indian and Alaska Native students. Appropriations for Part A totaled $53,520,000 in 1981, $50,419,000 in 1982, and $44,059,091 in 1983. Since 1976, the number of LEAs receiving funds has remained fairly constant. In 1982, 1,118 LEAs received funds, and an estimated 308,578 Indian students were in the school districts served.

To accomplish the study's purpose, data were collected during fall and spring site visits in the 1981-82 school year at a stratified random sample of 115 Part A projects operating in public schools. Data for the study were collected from: local school administrators, project directors, project staff, parent committee members, public school principals, teachers, leaders of the Indian community, and Indian students and their parents. At the Part A project sites, the project staffs, parent committee members, teachers, and students completed self-administered questionnaires; other respondents (i.e., district administrators, community leaders, and parents) were interviewed, and data were gathered from project and school district files.

In this concluding chapter, data are summarized and conclusions drawn from across the report as a whole. Beginning with a summary description of the Program and of Part A project students, objectives and activities, the topics of school officials' and Indian community satisfaction with the projects, project impacts on students, parents and school districts and study implications are addressed.

1. Overview of Part A Projects and Students

In the 1981-82 school year, the projects surveyed had a median budget of $26,450, and nearly two-thirds (65%) of these projects were funded entirely by

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Part A funds. Most (77%) of the projects' funds were used for salaries and benefits paid to their small staffs. Overall, the projects had a median of 1.4 full or part-time professional and 1.9 full or part-time paraprofessional staff members. Most project directors worked part-time for the project, and project staff frequently performed many different functions (e.g., instructors also provided counseling). Indian commmunity volunteers played an important role in the planning and operation of projects, particularly the projects which had cultural programs.

As required by the Part A statute and regulations, all of the projects surveyed had parent committees. The average committee membership was ten persons, with most members being Indian (87%) and parents (71%). Most committees were involved in making decisions regarding project goals (75%) and budgets (73%). All projects had conducted some form of needs assessment within the past year, however only about half (49%) had been evaluated by an independent third-party evaluator.

The most frequent services offered by Part A projects were tutoring or other special academic activities (80%) and Indian history and cultural instruction or activities (64%). Besides these services, approximately half (48%) provided counseling, and two-fifths (38%) of the projects supported home-school liaison activities. Only 22 percent provided financial assistance to parents for school related costs. In addition project staffs frequently worked with regular classroom teachers in assisting Indian students and assisted teachers in preparation of social studies and other instructional materials which affect all students in their classes or schools. Also, it is clear, from the data on employment of Indian teaching and non-teaching professional staff as well as observation and discussion at the visited sites, that Part A project parents and staffs are often the only Indian presence officially associated with the school system, except in districts where Johnson O'Malley Act program parents and staffs also play that role.

Overall, the projects served a median of 119 students, although the mean number served was 235. This was approximately 78 percent of the Indian students in the participating districts. On a cost per student basis, in 1981-82 the Part A program expended $221 per student served.

While the overwhelming majority of students receiving services from the Part A projects were identified as Indian, directors also reported a median of 4.8 non-Indian students in their projects. A descriptive profile of participating Indian students is presented in Table 4-1.

TABLE 14-1

SELECTED CHARACTERISTICS OF INDIAN STUDENTS
PARTICIPATING IN PART A PROJECTS

Characteristics of Part A Participants	Grade Range 4 - 6	7 - 9	10 - 12
Male	49%	46%	47%
Only English used at home	79%	86%	85%
Receive free or subsidized school lunch	76%	74%	60%
Mean school attendance level (1980-81, nat'l norm=161 days)	163 days	162 days	156 days
Mean reading achievement (spring 1981; nat'l norm=50)	47.7	46.6	45.8
Mean math achievement (spring 1981, nat'l norm=50)	48.0	46.6	46.9

Generally speaking, Indian students who participated in the projects were quite similar to Indian students who did not. In grades 4-6, slightly more non-participants than participants came from homes only speaking English (84% vs 79%) and fewer non-participants received free or reduced lunch (64% vs 76%). Similarly, in grades 7-9, more non-participants than participants came from homes only speaking English (75% vs 86%), although equal proportions received free or reduced school lunch. Interestingly, in grades 10-12 non-participants were more likely than participants to come from homes where Indian languages were used (19% vs 6%), although again equal proportions of both groups received free or reduced school lunch.

As a supplement to the major evaluation study, contact was made with a probability sample of all public school districts in the U.S. eligible for Part A funds (other than the ones sampled for this study), irrespective of whether they received a Part A grant; data from this sample were combined with those from the 115 visited sites.[1] Thus, information was obtained from a national sample of school districts, representing virtually all those with Indian students in the 1981-82 school year. Results from that substudy show that approximately two-thirds of Indian public school students are served by Part A projects, one-third are served by Johnson O'Malley programs, one-fourth by Chapter I projects, one-fifth by programs supported by federal vocational education funds, and fewer than one-tenth by Title VII bilingual education programs or through federal programs for the handicapped. These data indicate that many Indian students were not served by any federal programs except for Part A.

2. Appropriateness of Project Objectives and Activities

The study's findings regarding the nature of Part A project objectives and activities, and their appropriateness in terms of local needs, were presented in Chapter 5. It was found that, overall, the needs assessment processes employed by projects involved substantial input from both the Indian community and the school staff, and that most projects had conducted a needs assessment within the past twelve months.

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[1] See Appendix 5, An Analysis of Federal Funds and Services for Indian Students Public Schools (pp. A-35 to A-56 of this report).

Needs and Aspirations. The needs most frequently identified in Part A projects' written needs assessments were basic academic skills, Native American culture and history, and guidance and career counseling. The needs identified by local projects correlated highly with responses of Indian parents and community leaders to the open-ended question: "Thinking about your hopes and desires for your child(ren), what skills and knowledge do you think your child(ren) should develop in school by the time they graduate?"

Foremost among the aspirations volunteered by each group was proficiency in the basic skills, with nearly half of the parents, parent committee members, and community leaders responding thus (see Chapter 5, Table 5-9). The next most frequent set of responses pertained to the skills and knowledge necessary for productive post-secondary pursuits, be they education or career related. In addition to specific skills or knowledge, members of the Indian community also value emotional and psychological preparation for a productive life, notably the ability to plan ahead, the ability to adapt to the larger, non-Indian society, the ability to realize self-potential, and the development of self-confidence and pride.

In short, Indian community members want their schools to:

- Provide their children with proficiency in basic academic skills;
- Prepare their children with the necessary knowledge and skills for going on to higher education and/or for getting a job; and
- Develop within their children the needed psychological and emotional characteristics for leading a productive life after graduation.

The first of these aspirations relates to the expressed need for Part A projects to address basic academic skills. The second is associated with the statement of need for guidance and career counseling. The third implies the need for Part A projects to address native American culture and history, which often are viewed as assisting Indian students gain self knowledge and pride.

Objectives and Activities. The study findings revealed that nearly all projects specified objectives and carried out activities to address the needs identified in their written project needs assessments. On the average, slightly over three needs were expressed at each Part A project, and an average of 75 percent of these needs were addressed by local project objectives. Further, when the objectives of other district projects serving Indian students, such as Chapter 1 and Johnson O'Malley, were considered together with those of the Part A project, 91 percent of the identified needs were addressed. Similarly, 78 percent of the identified needs were addressed by the activities of the local Part A project, and 89 percent of these needs were addressed when the activities of all district programs serving Indian students were combined. Projects did more than concentrate on the areas identified in their written neeeds assessments, however. According to project directors, of 18 potential project objectives, 12 were primary or secondary objectives of two-thirds of the projects. In addition, of 18 potential project activities, at least 7 were carried out by over half of the projects. Thus, in addition to addressing their formally documented needs, the projects are setting objectives and expending energies in areas such as enhancing student self-concepts or improving school attendance, which appear to be serious problems for a relatively small number of students.

Data were also collected on the appropriateness of project objectives within the broader context of the overall educational goals of the schools served by the projects. Information was obtained from the principals of schools in which Part A projects were operating. Eighty-four percent of the principals stated that project objectives were very compatible with the educational goals and purposes of their schools. Another 14 percent reported project and school goals to be moderately compatible, and only 2 percent indicated that the two sets of goals were only slightly or not at all compatible.

Parents of project students were asked to describe what they considered to be the one or two most important things that the Part A projects had done for their children. The data show that the parents' responses fall, for the most part, into the three most frequently cited areas of project need as indicated by project needs assessments; that is, basic academic skills, Native American culture and history, and guidance and career counseling (see Chapter 5, Table 5-10). These findings indicate that, from the perspective of parents, Part A projects are providing appropriate activities.

In summary, then, Part A projects were found to employ needs assessment processes which tap the aspirations of the Indian community for the education of their children. The data show Part A projects to be focused on their documented needs while also showing them to be somewhat diffuse efforts with many objectives and activities. From a needs assessment perspective, the projects were well focused and addressed appropriate local goals. Basic academic skills, for example, was the most frequently expressed area of need (88% of projects); it was also stated most frequently as a primary objective (74% of projects), and tutoring was the most prevalent project component. However, local directors reported their Part A projects had multiple and diverse objectives and were carrying out many different activities which often extended well beyond the results of their needs assessment. It may be that projects are responding to the real needs of a limited number of students (e.g., students with serious school attendance problems) or to needs judged important although difficult to document (e.g., student self-concept and pride). However, it may also be that staffs and parents are sometimes simply bowing to conventional wisdom and expending energies on problems which may not be serious in their locale. In either case however, the data do indicate that projects were carrying out needed and appropriate activities with which most school administrators and parents were satisfied.

3. Satisfaction with Project Implementation of School Officials, Parents and Indian Community Leaders

The degree of satisfaction with the overall operation and specific aspects of Part A projects is one measure of project effectiveness. Thus, five respondent groups were asked similar questions about their satisfaction with their local Part A projects. Specifically, parents and parent committee members were asked how satisfied they were that the project was doing its job and district administrators, principals, and project directors were asked how satisfied they were with the quality of project activities. As reported in Chapter 5 (see Table 5-11), at least 75 percent of each group indicated that they were satisfied with the job the project was doing, or with the quality of project services.

Indian tribal or community leaders, however, were somewhat less satisfied. Although 52 percent reported that they were completely satisfied with the administration, the program of instruction, the staffs, and the parent committee of their local Part A projects, 48 percent were not satisfied with one or more aspects of their project. Specifically, this latter group of tribal leaders indicated they were not satisfied with the parent committee (67%), the administration of the project (54%); the instructional aspects of the project (47%); the programs provided by the project (43%); and the project staff (36%).

Parent committee members were asked a similar set of questions, and their responses reflected much greater satisfaction with their local project operations than did the responses of Indian community/tribal leaders. Overwhelmingly, the parent committee members indicated they were satisfied or very satisfied with the five reported aspects of their projects: administration (89%), instruction (87%), programs (87%), staff (91%), and parent committee (78%). The perspectives of parents and tribal leaders are, of course, quite different. While tribal/community leaders have less opportunity to see the project in operation than does the parent committee, their distance from the project may make them more neutral and objective reporters of Indian community views.

4. Impacts of the Part A Program on Indian Students

Data were collected from many different perspectives and sources in order to gain a comprehensive assessment of the potential impacts of local Part A projects upon Indian students. These data are summarized below.

Academic Performance. As discussed in Chapter 6, most (80%) Part A projects included activities intended to improve the academic performance of Indian students. Because Part A academic activities are supplementary in nature, their impacts should be expected to be limited in size and focused on subpopulations of Indian students. Independent ratings of academic impact were collected from Part A project staffs, project tutors, regular classroom teachers, parents, and tutored students and their combined ratings were used to form a judgment of academic impact.

Tutor ratings suggested that approximately half of the tutored students had improved their performance in reading and mathematics between fall and spring, and that almost all of the remaining students had maintained their previous levels of performance. Project staffs and classroom teachers indicated that the projects had had some impact on Indian student performance in reading and language arts, and classroom teachers and parents indicated that the projects had had some impact on student grades. Finally, students rated the impact of their Part A tutoring as 2.59 in mathematics and 2.63 in reading, on a scale of how much the student had learned that ranged from 0 = Nothing at all to 4 = Very much.

While these various sources and their responses could be questioned on an item-by-item basis, the cumulative effect of these generally positive ratings leads to the conclusion that the Program is having some positive impact. The positive ratings of relatively disinterested observers such as classroom teachers and parents are particularly meaningful.

Finally, this study underscores what previous studies have reported. Specifically, Indian student samples have consistently been below the means for non-Indian students on standardized achievement tests, although they are now only slightly below. At the student level, spring 1981 standardized reading achievement test scores for Indian students were 47.11 (SD=9.49), and they were 47.29 (SD=9.46) for math. Analyses of students' test scores found them not to be associated with project characteristics or program variables in a meaningful way. However, the data indicate that Indian student academic achievement test scores have increased to their highest level in over a decade, and since the Part A Program has had some academic impact, it may have contributed to this increase.

School Attendance. As discussed in Chapter 7, reducing dropouts (58%) and decreasing absenteeism (60%) were identified as primary objectives of a considerable number of projects. Some what surprisingly, the study's analyses of attendance data on individual students showed that, overall, school attendance is no greater a problem among Indian students than among the general population. However, low attendance is a serious problem for some students; attendance is lower for Indian high school students and for students receiving free or reduced price school lunches than for other Indian students.

Analyses of four years of attendance data from a sample of Indian students revealed no substantial changes in overall student attendance rates. However, where Indian student attendance was found to be below the mean attendance rate for all Indian students, Part A projects were addressing the problem with more time spent during school hours as the problem increased. Consistent with this, individuals with knowledge of the projects (project staffs, teachers, and parents) report that projects are having some positive impact on attendance.

In the area of student retention, the study's findings indicate there is a high incidence of Indian student dropout at the high school level in public schools, and that the dropout rate has been relatively constant over the past decade. However, the majority of public school teachers, parent committee members, and project staffs reported their projects had reduced the number of dropouts in their school districts. It may be that projects have been successful with a small number of students, but overal the study data suggest the Program has had no substantial impact in this regard.

The findings that Indian students have average or better attendance but also much higher than average dropout rates may appear to be contradictory. However, closer examination of the attendance data indicates that Indian student attendance drops significantly in the upper grades (9-12), which is the time when almost all dropout occurs. The findings may, therefore, suggest that attendance and retention are related phenomena of the high school level, but that retention is not related to factors which influence attendance for lower grade levels.

History and Culture. As discussed in Chapter 8, nearly two-thirds (64%) of the Part A projects had a cultural program, and the proportion of projects with cultural programs increased with project distance from reservations. Typical cultural programs provided instruction for 2.5 hours per week for 28 weeks of the school year, and virtually all used local Indian people in their cultural programs as instructors or advisors. The most frequently expressed needs of students, parents, Indian community leaders, and project staffs were Indian history and arts and crafts. They were also the most frequently taught subjects and the subjects about which the students indicated they had learned the most.

Indicators of impact of the cultural instruction component include:

- Seventy-eight percent of both school administrators and principals in projects with cultural components felt the cultural instruction and activities had increased Indian students' appreciation of their culture and way of life.
- Eighty-three percent of the parent committee members in these projects thought the cultural program had helped students.
- Indian community members and project staff reported that the cultural program had helped students to develop increased pride in themselves as Indians, and in their cultural heritage.
- Indian students reported a great interest in their culture and the students generally rated the projects' cultural efforts positively, with at least a majority indicating they had either learned some or been helped some. High school ratings, while lower than elementary school ratings, were also positive.

In sum these data suggest that the cultural programs are responding to the needs and desires expressed by the Indian community, and that they assist students in a variety of ways.

Attitude Toward School and Self. As discussed in Chapter 9, data from approximately 12,000 Indian students show that the majority of both elementary (grades 4-6) and secondary (grades 7-12) students had relatively positive attitudes toward school, themselves, and their Indian and Native heritage in the fall of 1981. The data also show a slight decline over the course of the 1981-82 school year. However, analyses of the data indicate that scores of Part A project participants declined less from fall to spring than those of non-participants, and that more positive attitudes along some dimensions are more highly associated with certain programmatic variables than with others. Overall, however, the impact-oriented analyses did not provide clear results, although there were some indications that moderately positive effects on student attitudes may have occurred. More important is the finding that these students had relatively good attitudes toward school, themselves, and Indian culture in both the fall and the spring. This suggests either the prior success of the many projects having improvements in these areas as objectives for the past several years, or that the attitudes of students in these areas was not the problem that many supposed.

Post-Secondary School Aspirations. As discussed in Chapter 10, a majority of the Indian students surveyed in grades 10-12 had talked to school personnel about post-secondary academic opportunities (75%), had been encouraged to attend post-secondary school (70%), and indicated they would like to attend such a school (90%). Indian high school students also had moderate levels of knowledge concerning post-secondary opportunites. Indian high school students who had contact with the Part A Program in the 1981-82 school year reported more knowledge of post-secondary opportunities and indicated higher levels of post-secondary academic aspirations than did other Indian students. The Part A Program appears to be a stimulus to post-secondary education.

Ratings by Parents. Additional indicators of the impact the Part A projects have had upon students may be derived from individuals involved in the project or knowledgeable about student improvements resulting from them. A primary source of this information was the parents of Indian students; they were specifically asked whether they thought the project had helped their children. On a five point scale (Not at all, A little, Some, A great deal, and Don't know), over half the parents reported that their local Part A project had helped their children at least "Some" to: (a) become more interested in school -- 54 percent, with 32 percent reporting "A great deal"; (b) have a better attitude about school -- 53 percent, with 31 percent reporting "A great deal"; (c) get extra help in school -- 53 percent with 31 percent reporting "A great deal"; and (d) get better grades -- 52 percent, with 30 percent reporting "A great deal". Also, nearly half the parents reported their project had helped their children to attend school more often (Some - 17%, A great deal = 24%) and to learn better study habits (Some = 22%, A great deal = 24%).[2] Thus, the majority of parents, overall, thought their children had been helped by the Part A project in each of the areas mentioned, to at least some extent.

Ratings by School District Administrators and Principals. District-level administrators and principals in schools with Indian students were asked a similar question about the effects of the local Part A projects upon Indian students. Administrators, during the fall site visit, were asked the following open-ended question: "From your perspective, what effects has the Indian education project had on Indian students in the district?" In the spring, principals were asked whether or not the project had had an impact in their school in terms of each of the categories the administrators identified. Overall, both principals and administrators were positive with respect to the impacts of the Part A projects on Indian students in their districts, with over 60 percent of both groups responding that students are more interested in their education.

Ratings by Classroom Teachers and Project Staff. Regular school teachers and project staffs are also important sources through which to judge student improvements. Teachers and project staff members were asked the extent to which Part A projects had helped Indian students in several areas:

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[2] From 16 to 19 percent of the parents reported "don't know" and 4 to 6 percent did not respond at all to these questions.

- Attendance;
- Interest in education;
- Basic skills;
- Knowledge of educational opportunities after high school;
- Self-concept; and
- Retention in school.

Teachers and project staff members were fairly consistent in terms of their responses on the extent of student improvement in each of the areas, although staff were more positive in all areas. Nevertheless, on a five point scale (Not at all, A little, Some, A great deal, and Don't know) approximately half of the regular classroom teachers reported that the local Part A project had helped Indian students at least "Some" to: (a) be more interested in their education -- 55 percent, with 22 percent reporting "A great deal"; (b) attend school more regularly -- 49 percent, with 21 percent reporting "A great deal"; (c) participate more in class -- 49 percent, with 19 percent reporting "A great deal; (d) improve their relationships with teachers -- 51 percent, with 20 reporting "A great deal"; and (e) improve their grades -- 51 percent, with 16 percent reporting "A great deal".[3]

Summary. In short, with respect to Indian students, Part A Projects were found to:

- Provide tutorial services to students in academic need which were judged by tutors, teachers, parents, and students to have benefitted the reading and math performance of students.
- Have had no effect on academic achievement test scores which could be related meaningfully to project variables, even though achievement test scores nationally for Indian students appear to have risen to their highest level since the Program began in 1972.
- Offer activities related to school attendance which were judged by teachers, parents, and project staffs to be having some positive impacts, and which were related to some improvement in the attendance level of students with the most severe attendance problems.

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[3] Approximately 30 percent of the teachers responded "don't know" to each of these questions.

- Have had little or no effect on reducing the rate of Indian student dropout although parents and staffs indicated some reductions have been made.

- Offer instruction and activities related to Indian history and culture which involved local resource persons; and to be of interest to Indian students, valued by parents and school personnel, and judged by students and adult members of the Indian community to have helped students learn about their heritage.

- Provide various services designed to improve students' attitudes toward themselves and school which were not strongly related to changes over the school year. However, student attitude scores were quite high at the start of the year, making measurable improvement extremely difficult.

5. Parental Involvement and LEA Impacts

The data show that parent committees have been formed as required in Part A legislation and regulation, and that they have taken an active role in the project and the LEA. Beyond participating in project decision-making, according to over three-quarters of the project directors, the parent committees had been responsible for an increase in the support for the project by members of the Indian community, and several project directors indicated that recommendations of the parent committee had had a moderate amount of influence on school policy-makers.

Parent committee members were asked if they thought parents, over the past three years, had become more involved in their children's education as a result of the Indian education project. The results indicate that parents have taken a greater interest in what the school is doing, and have been involved to a greater extent in attending school activities. Teachers were also asked whether parents had become more involved in their children's education in the past three years, and 60 percent of the teachers indicated that parents had become more involved. These teachers reported more contact between parents and students regarding student progress and behavior (87%), more parent-teacher meetings (77%), and more Indian parents at PTA meetings and school functions (55%). Principals also indicated the Part A projects had increased the interest and involvement of Indian parents in their schools.

Although frequently outside the scope of their stated objectives, many Part A projects undertook activities which could have an impact on their respective LEAs as a whole. Thus, information on this subject was collected as part of this study, and the findings reported in Chapter 12. As discussed there:

- Senior administrators in about half of the school districts reported that curriculum revisions and/or textbook adoptions had been made as a result of their Part A projects in order to reflect more accurately and more sensitively Indian history and culture.
- Principals of 82 percent of the surveyed schools reported improvements in the overall school curriculum due to the Part A project, and principals at 58 percent of these schools indicated that project materials were used by some teachers within their schools.
- Over two-fifths (41%) of the regular classroom teachers reported having changed their instructional approaches to accomodate Indian students, most often by incorporating Indian history into regular instruction and by giving students more individual attention. Most teachers also consulted with Part A project staffs in a variety of areas concerning Indian students and their education.

In addition, the study collected data on the attitudes of school personnel and the local non-Indian community toward Indians and their education as perceived by members of the Indian community. The findings show that members of the Indian community and project staff felt that school personnel overall had moderately positive attitudes toward Indians and their education, while the non-Indian community held a generally indifferent attitude. In addition, many of these respondents indicated that the Part A Program had improved the attitudes of school personnel and the non-Indian community toward Indians and their education. Over half of the parent committee members felt this was the case, and a larger majority reported that the local Part A projects had improved the relationship between the Indian community and the schools.

In sum, the study's findings with respect to Part A impacts on parents and school districts indicate that the program has:

- Involved Indian parents in the design and implementation of its projects.
- Increased the involvement of Indian parents in their local schools and their children's education.

- Had modest impacts on classroom level curricula and teaching practices.
- Improved attitudes of school personnel toward Indians and their education and the relationship between the Indian community and schools in approximately half the local school districts.

6. Overall Impact of Part A

Taken together, the data presented in this report suggest that the Part A Program has had an impact on Indian students, their parents, and their schools. The extent of that impact cannot be determined precisely, nor, therefore, can gains be calculated in terms of the amount of program dollars expended per year -- some $221 per Indian student in 1981. However, from the data it is clear that the congressional intent of establishing a mechanism powerful yet flexible enough to allow the many diverse Indian tribes and community groups to work with their local school systems to develop programs to meet the "special education or culturally related academic needs" of Indian students has largely been achieved.

Although the results of the projects were not uniformly positive, major differences in emphasis, judgments of effectiveness, or measures of impact were not systematically related to project location, size, or school district characteristics. Indeed, a separate substudy (reported in Chapter 13) was done of Part A projects which received grants of $5,000 or less (therefore, serving fewer than 30 Indian students) and even in these cases some, though modest, positive results were found.

Finally, the extent to which the positive results of the program are due to strategies and interventions of the Indian Education Program Office to implement Part A is not known. While parents and local school personnel clearly are those primarily responsible for project effects, federal policies and actions are at least somewhat influential. Indeed, when Part A project directors were asked to rate how important the federal Indian Education Program (IEP) office had been to their project, two-thirds stated the Program Office had played a moderate (29%) to very important (37%) role. In addition, the majority of knowledgeable personnel associated with local projects gave

IEP reasonably good marks for the role which it had played in developing their projects, and for the assistance which it had provided, although small projects located on or near reservations were not as satisfied.

Thus, as one might expect, it seems to be the human, qualitative elements, rather than such factors as the size of grant or structural characteristics, which make the difference between more or less effective Part A projects. Based on qualitative impressions derived from seeing projects in operation during site visits, the most important among these are: the interpersonal as well as organizational skills of project staff; parent committee and school staff dedication to helping Indian students and their willingness to work with one another; the attitudes of the Indian and non-Indian communities toward one another; and the overall climate of the schools.

In this regard, the IEP strategy of supporting technical assistance centers to work with local personnel appears to have provided an opportunity for professional Indian educators working out of the centers to interact personally with project staffs, parents and key school district personnel. Although the centers were only in their second year at the time of this study, a majority of projects were receiving some form of assistance from them, and over half (58%) of the school district administrators surveyed reported that district or project staffs had receved some training, and that they were moderately to very satisfied with the assistance provided. Also, there was evidence of a general increase from the first to second year of the Centers' operation in the extent to which project directors perceived them as helpful.

7. Implications and Future Needs

Contrasting the data available in the early 1970s with the findings in this report suggests there has been a substantial improvement in the condition of Indian public school education since the data leading to passage of the Indian Education Act were compiled. From a national perspective, school attendance of Indian children seems to be no special problem, and their attitude toward school and their levels of self-concept are also quite positive.

Even academic achievement, although still slightly below national norms overall, and especially at the upper grades, is not at the alarmingly low levels reported at the start of the 1970s. Clearly correlated, and perhaps causally related, the relationship between schools and Indian parents has changed. Parents are much more involved in public schools than ever reported before, and they seem to be reasonably supportive of the education the public schools are providing their children. Correspondingly, the data suggest that the climate in public schools with respect to Indian children is considerably more benign than reported to have been the case some fifteen years ago. For the most part, parents and students report their schools overall, and specific categories of staff in particular, pose no special problems for Indian students. Only in the area of school dropout rates do the data fail to show marked change since before the Part A Program began.

However, the study's findings also indicate that continuing educational needs exist. At a minimum, the data indicate that the situation varies by school district and region. While achievement test scores are generally positive and relations between the schools and Indian community are generally neutral to positive as well, this is not universally true. The sensitivity of school administrators continues to be viewed as a problem by Indian parents and community leaders in up to 30% of the LEAs, and test score results for some groups of Indians students are considerably below the norm.

Specifically, the data show that mean scores declined from the elementary through the secondary grade levels (from means of 48.16 and 48.61 in third grade to means of 44.94 and 45.23 in eleventh grade in reading and math scores), and that in terms of project setting, students in districts on or near reservations scored slightly lower than other Indian students, and those in metropolitan areas slightly above, and that students in the southwest, Alaska and Dakotas scored slightly lower than other Indian students and those in the Northeast, California, and upper Midwest (Wisconsin and Minnesota) scored slightly above. The data also show that there are differences associated with socioeconomic status. Indian students receiving free or subsidized school lunches had mean scores of 45.84 in reading and 45.77 in math, as compared to other Indian students who had mean scores of 48.94 in reading and 47.83 in math. Similarly, the attendance of Indian students generally increased from kindergarten through the fifth grade, was stable and high through grades 6 and 7, decreased slightly in grades 8 and 9, and then decreased more in grades 10 and 11. Thus, it would seem special attention should be paid to Indian students in grades eight and above.

Although Part A was not established as a program to develop school district capacities for serving Indian students,[4] it seemed useful to obtain some indication of the likelihood that local districts would continue project activities in the absence of federal funds. Thus, in the fall of 1981, district administrators at the visited sites were asked: "If, for any reason, your Indian education project were to lose its funding, would your school district continue any part of the project by funding it out of its own financial resources?" The respondents were superintendents and assistant superintendents who were knowledgeable about Part A project activities. Forty-two percent of the administrators responded "no," their district would not continue project activities with its own resources.

Part A project directors were asked the same question, and the majority (62%) indicated they did not think their districts would continue project activities without special funding. The 58 percent of district administrators who said they did expect some continuation would occur were also asked what components of the project they thought would be sustained. Of these administrators, 27 percent said it would be tutoring or academic components, 17 percent said counseling and career enhancement, 13 percent said they would keep classroom aides and other staff members, 11 percent said they would attempt to incorporate the whole program or as much as possible, and 17 percent simply said they would try to provide some funding. Only 15 percent said they would keep special culturally related activities, although Part A project directors

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[4] Rather, it was conceived as a service program, and districts have, therefore, never been asked for a commitment to someday assume fiscal responsibility for Part A sponsored activities.

1.0
4.5
5.0
5.6
6.3
7.1
8.0
2.8
3.2
3.6
4.0
2.5
2.2
2.0
1.1
1.8
1.25
1.4
1.6

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

were more optimistic in this regard (26 percent indicated they thought cultural arts and crafts activities, for example, would be continued).

The evaluation also included a substudy focused on the role of the states in Indian education.[5] From this it was clear that while some states have a long tradition of supporting special programs for Indian students, most do not. Indeed, although the relationship between many projects and their state educational agencies is supportive and the state officials surveyed indicated their departments would be quite willing to take over responsibility for Part A in their states, many also reported that, due to state constitutional provisions, they are constrained against providing special educational services for Indian students. Thus, there is a basis for Indian concern that a transfer of the program to state control would lead to incorporation of specially designated "Indian funds" into broadly targeted educational programs, as was true with Johnson O'Malley funds in many districts in the 1960s. If so, there would be no assurance of services designed to accommodate the special culturally-based needs and sensitivities of Indian children nor activities to promote a climate which would encourage their parents' support and involvement in their formal education.

In conclusion, the picture which emerges from this study of the Part A Program in public schools is one of a small, supplemental program which has been locally tailored to meet local needs, administered to the general satisfaction of school officials and the Indian community, and appears to have had some impact on the school attendance and academic performance of Indian students and the improved relations between Indian parents and local school systems. It is reasonably clear that the conditions of education for Indian students are substantially better than when the Indian Education Act was passed, and that this is due in part to the Program. However, it cannot be said how much of that change is due to Part A. Other programs supported by the Indian Education Act, Johnson O'Malley programs, Title I and other federal programs, many tribal and community-based Indian programs for students and parents, and, perhaps, a generally more tolerant and sensitive attitude toward cultural differences in schools and society at large have also been factors at work during the entire life of the Program. Nevertheless, it appears that the overall objectives of the Congress in enacting the Part A Program are being largely achieved, and to the general satisfaction of the Indian community.

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[5] Appendix 4: The Role of the SEA in Indian Education (pp. A-13 through A-33 of this report).

The sum of the data from the study also suggests some ongoing needs. Many Indian students, particularly at the junior and senior high school levels, need academic assistance and further encouragement to stay in school. Indian students, generally, are still below national norms on achievement tests. Those needs are even more pronounced in certain areas of the country. Finally, the particularly unique Part A efforts to teach culturally related topics and special heritage classes and to substantively involve Indian educators and parents in school programming are viewed as important, ongoing needs by the Indian community.

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APPENDICES

APPENDIX 1:
MAJOR LEGISLATION AFFECTING INDIAN EDUCATION

1870 First congressional appropriation for education

$100,000 was appropriated to support industrial and other schools for Indian children. In 1876 an annual appropriation was established and continued, with modifications, until 1950.[1]

1934 Johnson O'Malley Act

Authorized the Secretary of the Interior to enter into contracts with states for the education of Indians. It also allowed states the use of government equipment and school buildings.

1936 John O'Malley Act Amended

To allow the Secretary of the Interior to contract with states, political subdivisions thereof, any state university, college, or school, or with any appropriate state or private corporation, agency or institution for the education of Indians.

1950 Impact Aid Laws (P.L. 874 and P.L. 815)

Purpose of the Impact Aid Laws are to provide federal funds where federal activities, mainly military installations, created a financial burden on local school districts. Originally, the purpose was unrelated to Indian education, but with the amendments, Impact Aid funding has become the major source of federal funds for districts with Indian children.

Impact Aid Law (P.L. 874)

Provides federal funds to local school districts for general operating expenditures paid in lieu of local taxes.

Impact Aid Law (P.L. 815) "School Facilities Constructive Act"

Provides federal funds to local districts for school construction in districts with federally-connected students.

1953 Impact Aid Law (P.L. 815) Amended

To provide funds to local districts to assist in the construction of schools for Indians.

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[1] See AIPRC, Task Force 8 Report, Appendix I, p. 317.

1965 The Elementary and Secondary Education Act

Title I provides financial assistance to school districts educating children from low income families. In 1967, a separate appropriation was authorized to go to the BIA for students in federal schools.

1968 Bilingual Education Act (Title VII of the Elementary and Secondary Education Act, as amended by P.L. 95-561 in 1978)

Enacted to demonstrate ways of meeting the special educational needs of students of limited English-speaking ability. A major goal of the program is to show how children can progress in school using their native language while simultaneously acquiring competence in the English language.

1972 Indian Education Act (Title IV of P.L. 92-318, as amended in 1974, P.L. 93-380 and 1978, P.L. 95-561)

The Act provides financial assistance to local education agencies (LEAs), Indian-controlled schools, Indian tribes, Indian organizations, institutions of higher education, federally-supported schools for Indian children, and state education agencies to meet the special educational needs of Indian children and adults. The Indian Education Program Office is responsible for administering the Act.

Programs funded under the Act range from early childhood to adult education and include elementary, secondary, and higher education projects. Program grants vary significantly from less than a thousand dollars to several hundred thousand dollars. This variance reflects the diverse needs of Indian tribes and communities served by the Indian Education Act.

1975 Indian Self-Determination and Education Assistance Act (P.L. 93-638)

The Act consists of two parts: (1) The Indian Self-Determination Act which allows the government to contract federal programs at the request of Indian tribes and (2) the Education Assistance Act which amends the Johnson O'Malley Act and provides for school facilities in public school districts.

1978 Education Amendments of 1978 (P.L. 95-561)

Title XI of P.L. 95-561 addresses Indian Education in three parts:

Part A amends P.L. 874

Part B requires standards be established for the basic education of Indian students in BIA schools.

Part C deals with Indian Education Act programs. The Act is reauthorized for five years and amends the Act in various ways.

1978 The Tribally Controlled Community College Assistance Act (P.L. 95-471)

Provides grants for the operation and improvement of tribally controlled community colleges to insure continued and expanded educational opportunities for Indian students.

APPENDIX 2:
ACCURACY OF ESTIMATES

This section contains the standard errors for those Part A Program characteristics which were selected as being particularly interesting to policy-makers and planners. Some guidelines for interpreting these standard errors and how they were computed are also included.

Two general types of errors are commonly recognized in deriving summary statistics or estimates based on a sample survey -- sampling and nonsampling errors. Sampling errors occur because the obtained data are based on a probability sample rather than the entire population. Nonsampling errors arise from many sources other than on sampling, and represent an entire area of concern in themselves. These can arise from any of the following factors: inability to obtain information about all cases in the sample; definitional difficulties which may vary across local projects or respondents; how questions are interpreted; respondents' inability, or unwillingness to provide accurate and correct information; and a wide range of other measurement, processing, and responding errors.

The national-level estimates provided here are obtained from sample data, and therefore vary somewhat from the corresponding statistics that would have been obtained if a complete survey or a census which yielded a 100 percent response had been conducted, using the same data collection forms, procedures, and instructions. Furthermore, a sample is only one of a large number of possible samples (of the same size) that could have been selected by using the same sampling design and universe of projects or other types of sampling units. Estimates derived from these different samples will generally differ from each other. Such a difference between a sample estimate and the average of all possible samples (drawn from the same universe) is called a sampling deviation. In turn, the standard or sampling error of a survey estimate is a measure of the variation among the estimates from all possible samples. It therefore is a measure of precision with which an estimate from a particular sample approximates the average result of all possible samples.

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In general, the sampling procedures and sample sizes used in this study were selected to minimize errors to the extent possible within reasonable costs, recognizing the finite resources available. In addition, while the standard error partially measures the effect of nonsampling errors, it does not measure any systematic biases in the data. Bias (or misrepresentativeness) is the difference, averaged over all possible samples, between the estimate and the true value. With these factors in mind, the overall accuracy of a survey result depends on both: (a) the sampling and nonsampling errors, mesured by the standard error, and (b) the bias and other types of nonsampling errors, not measured by the standard error.

The sample estimate and an estimate of its standard error permits the development of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. For example, one of the most frequently cited confidence interval sizes is the 95 percent confidence interval. Conceptually, this means that if all possible samples were selected, each was surveyed under essentially the same conditions, and an estimate and its estimated standard error were calculated from each sample, then approximately 95 percent of the intervals from 2 standard errors below the estimate to 2 standard errors above the estimate would include the average value of all possible samples. (An interval from 2 standard errors below the estimate and 2 standard errors above the estimate is called a "95-percent confidence interval;" see Gonzalez, Ogue, Shapiro, and Tepping, 1975.)[1]

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[1] Gonzalez, M., Orgue, J., Shapiro, G., & Tepping, B. Standards for discussion and presentation of errors in survey and census data. Journal of the American Statistical Association, 1975, 70, Part II.

Sampling Error -- As only one primary sampling unit (a project) was selected from a stratum, it is necessary to use approximation methods to estimate sampling variances. Techniques known as collapsed stratum and ultimate cluster were used. A collapsed (or pseudo) stratum is a combination of two or more of the orginal strata used in the selection of projects. The objective is to combine similar strata and total the combinations (pseudo strata) as though they were the strata used in the design and selection of the sample. An "ultimate cluster" is the sample of units selected from a primary sampling unit, which in our case is a project.

Let n_h equal the number of ultimate clusters in pseudo stratum n. Within each stratum, n_h estimates are prepared, one from the data from each ultimate cluster. Each of these estimates was an estimate of a total, an average, or a percentage for the pseudo stratum as a whole. Let x_{hi} represent the estimate based on data from the ith cluster in stratum n. For purposes of estimating sampling variance, the values of x_{hi} are treated as a stratified random sample with proportional representation from each pseudo stratum. That is, the well known variasnce formula from stratified random sampling with proportional representation from strata was applied. The estimates of variance tend to overestimate the actual variances which is probably of very little importance for practical purposes.

As discussed above, some data did not involve sampling within projects. In this case, the same approach to estimating sampling variance is applicable. The value of the variable for a project multiplied by an appropriate expansion factor or weight becomes x_{hi}, an estimate for the entire pseudo stratum in question.

The estimates of the standard error for selected estimates are presented in Table 1. In general, the largest standard errors are for estimates that are based on data from district administrators, project directors, parent committee chairpersons, and other data where the sample size or number of units of observation is 115. Estimates based on data from students, teachers, parents, and other sources that involve much larger number or units of obsersvations have the smallest standard error. Table 1 shows, for estimates of percentages, the standard errors are in the neighborhood of 2 percentage points where the reporting units are students, teachers, etc. On the other hand, where the percentage estimates are percentages of projects having particular characteristics (e.g., percentage of projects having various program components) the standard errors are on the order of 5 or 6 percentage points.

TABLE 1

ESTIMATED STANDARD ERRORS FOR SELECTED ESTIMATES

Variable No.	Characteristics of Variables	Estimate	Estimated Standard Error
1	Project Director Characteristics		
	% Indian	43.1	9.2
	% Male	55.0	7.8
	% Having a degree	83.1	7.8
	Ave. hours worked/wk	19.0	1.57
2	Program Components		
	% With counseling	48	6.0
	% With home-school coordination	38	5.8
	% With parental cost component	22	5.5
	% With cultural activities	64	5.4
	% With tutorial program	80	3.9
3	Hours Tutored Per Week	4.7	0.2
4	Parent Committee Chairperson		
	% Male	42	8.0
	Ave. no. years on committee	2.3	0.1
5	Indian Students		
	% Leaving before completing H.S.	19	1.6
	% With education beyond H.S.	41	1.8

TABLE 1 (Continued)

Variable No.	Characteristics of Variables		Estimate	Estimated Standard Error
6	Project Staff			
	% Native		71	3.6
	% Female		84	2.9
	% Emloyed full-time		81	2.7
7	Parent Comittee Members			
	% Indian		87	1.7
	% Male		30	2.7
	% Parents		71	2.0
	% Teachers		12	1.7
	% Satisfied with project		89	2.1
8	Indian Parents who think			
	Project has helped their children to get better grades	%	68	2.1
	Project has helped them	%	57	2.2
9	School Principals			
	Satisfied with quality of project	%	88	1.9
	Believe project is valuable	%	89	1.9
10	Teachers have made changes			
	In curriculum material	%	47	2.0
	In teaching approach	%	41	2.0
	Teachers believe			
	More parents are involved	%	60	2.8
	Project is benefitting students	%	78	2.4
11	Student Achievement Test Scores			
	Reading - ave. score		47.4	.55
	Mathematics - ave. score		47.8	.51
12	Average Days Attended School, 1980		162.4	.90

APPENDIX 3: PATH ANALYSIS DECOMPOSITION TABLE

Factors Affecting Parents' General Satisfaction With Part A Projects*

DEPENDENT VARIABLES	CAUSAL CHAIN	TOTAL EFFECT	INDIRECT EFFECTS: Parent Participation	INDIRECT EFFECTS: Parent Committee Involvement	INDIRECT EFFECTS: School Staff Sensitivity	INDIRECT EFFECTS: Student Cultural Needs	INDIRECT EFFECTS: Student Performance	DIRECT EFFECTS
Parent Participation	Communications	.700						.700
Parent Committee Involvement	Communications	.152	-.030					.182
	Parent Participation	-.043						-.043
School Staff Sensitivity	Communications	.188	-.095	.017				.266
	Parent Participation	-.135		.004				-.131
	Parent Committee Involvement	.091						.091
Student Cultural Needs	Communications	.443	-.087	.017	.045			.468
	Parent Participation	-.124		-.004	-.023			-.097
	Parent Committee Involvement	.096			.015			.081
	School Staff Sensitivity	.169						.169
Student Performance	Communications	.194	.040	.020	.092	.152		-.110
	Parent Participation	.058		-.005	-.045	-.032		.140
	Parent Committee Involvement	.106			.031	.027		.048
	School Staff Sensitivity	.346				.056		.290
	Student Cultural Needs	.326						.326
General Satisfaction	Communications	.486	-.069	.018	.047	.316	-.004	.178
	Parent Participation	-.099		-.005	-.023	-.066	.005	-.010
	Parent Committee Involvement	.100			.016	.055	.001	.028
	School Staff Sensitivity	.176				.114	.010	.052
	Student Cultural Needs	.675					.011	.664
	Student Performance	.036						.036

Note: The path coefficients (decimal numbers) are represented by beta weights which permit comparisons across variables which have different scales.

*Text describing and interpreting these data is found in Chapter II.

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APPENDIX 4: THE ROLE OF THE STATE EDUCATION AGENCIES IN INDIAN EDUCATION

Introduction

The purpose of this report is to describe and analyze the roles of the State Education Agencies (SEAs) relative to American Indian Education (including Alaska Natives). It provides information supplementary to that presented in the final report of the National Indian Education Impact Evaluation.[1]

The focus of this report is on the Part A Program of the Indian Education Act, but the report also describes other aspects of American Indian education. For example, several states have adopted a variety of state-funded educational programs for American Indians that have operated, in most part, independent of the Indian Education Act programs. In addition, a large number of states administer other federal programs that are intended to address explicitly the education of American Indians.

The report also includes a brief description of the historical roles that State Education Agencies have played in American Indian Education. The first section of the report assesses the current role of the states in American Indian Education. This is followed by an examination of the projected roles of the SEAs, based upon current trends in federal policy and the state of the national economy.

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[1] This substudy of SEAs was conducted as a component of a comprehensive evaluation of the impact of the Part A Program of the Indian Education Act, for the U.S. Department of Education. The principal component of the evaluation was a study of a sample of 115 projects located throughout the United States, representing Part A grantees. Data were collected during the fall and spring visits, using a variety of quantitative and qualitative procedures.

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The substudy on which this report is based was national in scope, but focused on 25 individual states. Seventeen of the states selected were once part of the Indian Education Project of the Education Commission of the States, and are characterized by the largest American Indian populations and over 90 percent of American Indian lands held in trust by the Federal Government. The eight remaining states were selected to represent states with lower numbers of American Indians. (The complete list of the 25 states appears in Table 1 below.)

TABLE 1

STATES INCLUDED IN THE STUDY

1. Alaska
2. Arizona
3. California
4. Colorado
5. Florida
6. Idaho
7. Kansas
8. Louisiana
9. Maine
10. Michigan
11. Minnesota
12. Montana
13. Nebraska
14. Nevada
15. New Mexico
16. New York
17. North Carolina
18. North Dakota
19. Ohio
20. Oklahoma
21. Oregon
22. South Dakota
23. Utah
24. Washington
25. Wisconsin

The information presented was derived principally from two sources. First, in-depth discussions were held in person or by telephone with representatives from each of the 25 SEAs selected. These focused on several issues in American Indian education: the state conception of responsibility; past and present state legislation and policy; state expenditures for Indian education; and the nature of bureaucratic structures within the SEA and other state agencies responsible for administering educational services to American Indians. Further information concerning the SEAs role in Part A projects and the local assessment of this assistance was gathered through questions asked of district administrators and project directors at the 115 projects visited for the national impact evaluation of the Part A Program. This information is presented in the last section.

History of the State Role in American Indian Education

Most state constitutions contain provisions for education. Although these vary in language, the majority require the state legislature to provide for the establishment and maintenance of an efficient system of public schools.

The establishment of these provisions occurred over a long period in the history of the United States. In most cases, a legal relationship between these provisions and American Indian education was not established until 1924. It was in this year that President Coolidge signed the Indian Citizenship Act, which declared to be citizens "all non-citizen Indians born within the territorial limits of the United States."[2] (Some states had already accepted responsibility for the education of Indian children, but after the signing of that Act it was clear that state educational provisions applied to all American Indians.) From this point on, American Indians should have been provided with the same opportunities for public education as other citizens residing within their states. This, however, has not always been entirely the case.

Several key states with large Indian populations resisted assuming full responsibility for the education of resident American Indians. The main argument behind this resistance involves the continued tax-exempt status of lands held by American Indians and state education financing plans which are dependent upon the collection of local property taxes. These states, it is argued, cannot assume the burden of complete fiscal responsibility for the education of American Indians without a local tax base.

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[2] Cohen, Felix J. Handbook of Federal Indian Law. Albuquerque, New Mexico: University of New Mexico Press, 1942, pp. 153-55.

Although a state is not compelled by the Constituition of the United States to provide educational opportunities for its children, the "equal protection clause" of the Fourteenth Amendment requires that any opportunity provided to some be provided "equally" to all. Also, many states have equal protection or due process of law requirements similar to those found in the federal Constitution,[3] and the equal protection clause, as interpreted, prohibits state differentiation on the basis of race, unless there is a compelling state interest to the contrary. This responsibility was outlined by the 1954 Supreme Court decision of Brown v. Board of Education.[4] However, various studies over the past 20 years have shown that inequalities persist in the education of American Indian children.[5]

The systemic inequality in education with regard to American Indians, and its results, are well documented. Research has shown that many state policy-makers believe the education of American Indians is a joint responsibility of the states and the federal government. They contend that the "federal portion" of that responsibility derives from the historical and political relationship between American Indians and the United States government. The "state portion" is based on the recognition that American Indians are indeed citizens of states, and state constitutions provide for public education of all state citizens.[6]

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[3] LaMorte, Michael W. School Law-Cases and Concepts. Englewood, New Jersey: Prentice Hall, Inc., 1982, p. 11.

[4] Price, Monroe E. Law and the American Indian. Kansas City, Kansas: Bobbs-Merril Company, 1973, pp. 248-49.

[5] Havighurst, R.J. National Study of Indian Education. Research in Eduction (ED 045 275), 1970.

[6] Education Commission of the States. Indian Education-Involvement of the Federal, State, and Tribal Governments. Denver, Colorado: Indian Education Project, Lee Antel, Director, 1980, p. 17.

The concept of the "state portion" is the key to understanding the position of the majority of the states. They affirm that their responsibility is the same for all students, and contend that no special effort to identify any special needs of American Indians is required. This majority position appears compatible with the Fourteenth Amendment, which, as noted, defines a state responsibility to provide for equal educational opportunity for all children. This obligation extends to American Indians, is applicable to all American Indians whether on reservations or not, and is not lessened by the historical role of the federal government in American Indian education. The evidence indicates that many states have, for the most part, met this basic responsibility. However, some states have historically not provided for the education of Indian and Native children residing in remote rural areas, particularly those on reservations with no property tax base or political influence.

Two conclusions can be drawn. First, American Indian children are entitled to the same opportunities for public education as other citizens living within a state. Second, public education is moving, although slowly, toward a greater responsiveness to the cultural plurality of the country.

Before leaving this very brief discussion of the history of the state role in American Indian education, it is important to look at least briefly at the role that the SEAs have played in the administration of the Indian Education Act programs operating within Local Education Agencies (LEAs) in the states.

The Indian Education Act was signed into law by President Nixon in June of 1972, and was amended in 1978. Major portions of its annual federal appropriations have been channeled to Local Educational Agencies within the states, although neither the original legistation nor the 1978 amendments authorized a formal administrative role for State Education Agencies.[7] Yet almost immediately upon implementation of the Act, the State Education Agencies (SEAs) were asked to carry out two major administrative functions that were prerequisites to the awarding of Part A grants to the LEAs within the state. First, the SEAs were asked to certify that each applicant LEA had maintained its local effort, or contribution, to the cost of a free public education over the past and current program or school year, a task of some magnitude for the states with large American Indian populations. The SEAs were then asked to verify the enrolled American Indian student count submitted by each LEA when it applied for these funds. (The formula for the grant depends in part upon the number of American Indian students enrolled in the LEA.)

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[7] A Compilation of Federal Indian Laws. Prepared for Congress: House Committee on Education and Labor and Senate Committee on Human Resources. Washington, DC: Government Printing Office, 1979, pp. 159-66.

Also, shortly after the implementation of the Act, the State Education Agencies were asked to plan statewide or regional technical assistance conferences for Indian Education Act grantees. Some of the states were provided minor financial assistance by the federal government; however, the brunt of the costs for holding the conferences fell upon the State Education Agencies. It is important to note that the SEAs complied despite the limited federal compensation and the absence of the legislative authority.

Finally, in response to the local needs of grantees, many SEAs established, at minimum, new "Indian Desks" within their organizations to accommodate the administrative requirements of Indian Education Act programs that had been placed upon them. In several cases, SEAs added to the personnel of already standing Indian offices to meet the needs of the IEA programs.

Current Role of the States in American Indian Education

Any assessment of the current role of State Education Agencies in American Indian education must consider three key elements. The first is state policy. Important here are provisions for providing education for all citizens and state legislation, or formal written policies, that explicity address American Indian education. The second is the presence of a state organization to meet the needs of Indian students. And the third is the nature of state financial support. Also important is the sense of responsibility that states display toward the provision of educational opportunities for resident American Indians. The assessment of the current role of the states in American Indian Education was based upon the above three issues addressed during indepth discussions held with representatives from the 25 selected SEAs and reviews of pertinent legislation, policy statements, and related documentation.

During the discussions with SEA representatives, questions were asked about the nature of state legislation, or formal written policies, that explicitly address American Indian education. As shown in Table 2, twelve (48%) of the 25 SEA representatives noted that their states had some form of legislation explicitly addressing American Indian education. For example, a law enacted by the New York legislature in 1846 marked the beginning of direct state assistance in the education of resident American Indians. This law provided for school buildings and annual appropriations to support schools for five years on four reservations.[8] Eventually, this led to a special act (Chapter 24, Laws of 1904) mandating the compulsory education of American Indian children residing on reservations, and provided for the full complement of public education services that still exists today.

The responsibilities for the education of American Indians set forth by state statutes and constitutions range from the unconditional acceptance of full responsibility, as in the case of New York state, to a recognition that American Indians are present within the state and that they have a culture worth recognizing and preserving. For example, in 1972 Montana redrafted its constitution. Article X of this Constitution guarantees "equality of educational opportunity for each person of the state." Furthermore, it recognizes the "distinct and unique cultural heritage of the American Indians and is committed in its educational goals to the preservation of their cultural identity."[9]

While 48 percent of the 25 SEA representatives interviewed confirmed that their states have legislation on American Indian education, 64 percent said that their states have either a formal administrative policy or a state school board position paper that applies to this responsibility. For example, the state of Washington exercises "A Declaration of Indian Education Policy By the State Superintendent of Public Education" as an expressed commitment to the education

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[8] Printup, Maribel W. History of Indian Education in New York State. Master's Thesis, the Pennsylvania State University, 1974, p. 8.

[9] Esehler, Edward. Indian Studies Law - A Lesson in Policy Changes. Billings, Montana State University, 1979.

TABLE 2

INVOLVEMENT OF SELECTED STATES IN INDIAN EDUCATION

Selected States	Legislation on Indian Education	Formal Policy Statement on Indian Education	Special Appropriations for Indian Education
Alaska	-	x	x
Arizona	-	x	-
California	x	x	x
Colorado	-	-	-
Florida	x	-	x
Idaho	-	-	-
Kansas	-	-	-
Louisiana	-	-	-
Maine	-	-	-
Michigan	x	x	x
Minnesota	x	x	x
Montana	x	x	x
Nebraska	-	-	-
Nevada	x	x	-
New Mexico	x	x	-
New York	x	x	x
North Carolina	-	-	-
North Dakota	-	x	-
Ohio	-	-	-
Oklahoma	x	x	x
Oregon	x	x	-
South Dakota	x	x	-
Utah	x	x	x
Washington	-	x	-
Wisconsin	-	x	-
	12	16	9

of American Indians. This policy states that the superintendent of public instruction has and accepts the constitutional responsibility to ensure that each student attending the public schools has an equal educational opportunity. Further, the policy states that "American Indian children historically have been unable to enjoy the full benefit from public education because of cultural differences, conflicting values, lack of understanding and other factors."[10] The intent of this policy is to provide stability and positive leadership in tne common effort of improving educational services to American Indian students.[11] While a policy statement does not carry the force of law, it represents a formal commitment by the state to meet the responsibility of educating resident American Indians.

Interestingly, the state of Arizona, with a large Indian population, has had no explicit policy noting any specific responsibility for educating resident Indians. Discussions with its SEA representative, however, revealed that the state is in the final stages of developing a comprehensive policy statement on American Indian education, and that this new policy is to be implemented during the fall of 1983. The policy statement outlines the recognition of the special educational needs of American Indians and the state's intent to meet those needs.

Also discussed with SEA representatives was the organizational structure of the SEA office and the location of the administration of American Indian education services. As shown in Table 3, fourteen (56%) of the representatives stated that the SEA organization included a separate unit whose sole responsibility was American Indian Education. The size and function of these units varied from state to state. The Indian Education unit within the Oklahoma State Education Agency, for example, contained twelve full-time positions and administered every phase of public education for American Indians, whereas the Indian Education office within the Wyoming SEA used one consultant whose main function was the administration of federal programs. Regardless of size, the presence of a

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[10] Superintendent of Public Instruction. Declaration of Indian Education Policy. Olympia, Washington: State Department of Education, 1975, p. 1.

[11] Esehler, 1979. op. cit.

TABLE 3

SEA ADMINISTRATION OF INDIAN EDUCATION IN SELECTED STATES

Selected States	Native American Programs Unit	Native American Desk	Administered Through Offices for Other Programs
Alaska	-	-	x
Arizona	x	x	-
California	x	x	-
Colorado	-	-	x
Florida	-	-	x
Idaho	-	x	-
Kansas	-	-	x
Louisiana	-	-	x
Maine	-	x	x
Michigan	x	x	-
Minnesota	x	x	-
Montana	x	x	-
Nebraska	-	-	x
Nevada	-	x	x
New Mexico	x	x	-
New York	x	x	-
North Carolina	-	x	-
North Dakota	x	x	-
Ohio	-	-	x
Oklahoma	x	x	-
Oregon	x	x	-
South Dakota	x	x	-
Utah	x	x	-
Washington	x	x	-
Wisconsin	x	x	-
	14	18	9

separate organizational unit for American Indian education represents a state commitment to its educational responsibilities to American Indians.

Moreover, 72 percent of the SEAs contacted have, at a minimum, established an "Indian desk" within a related unit to administer services to American Indians. A typical example of this can be found within the SEA of North Carolina. Although North Carolina has no legislation or formal written policy relating to the education of resident American Indians, a functioning "desk" was established within the SEA at the discretion of the state superintendent. The establishment of this "desk" occurred primarily in response to the administrative tasks associated with the Indian Education Act Program asked of the state.

The discussions also revealed that 36 percent of the SEAs administer American Indian education services through a related unit within the agency. The state of Colorado, for example, administers these services through the SEA "English Language Proficiency Units," and the state of Florida through its "Office of Special Programs."

These findings demonstrate that the range of accepted organizational responsibility for American Indian education among the 25 selected SEAs is quite broad. No standard criteria determine or influence SEA commitment of resources. Instead, each state responds to local pressures and needs in determining the type and extent of organizational resources directed toward education services for American Indians.

Information was also gathered on state appropriations of special financial resources for American Indian education. The discussions focused on financial commitments made solely in response to a recognition of a fundamental responsibility that states have assumed for the public education of all of its citizens. As shown in Table 2, of the 25 SEAs contacted, nine (36%) stated that their state legislatures did appropriate monies explicitly intended for American Indian education. Two areas of assistance were reported: state assistance for higher education and basic support for local educational agencies that have an Indian enrollment. Some state legislatures appropriated special resources in both areas. For example, in the area of higher education, the state of Michigan has an "act to provide free tuition for North American Indians in public state community or public junior colleges, public colleges, or public universities."[12] At the same time, the Michigan State School Aid Act of 1982 provides that:

> . . .a district having American Indians in attendance, who reside within the district and upon a United States government Indian reservation, shall be allowed in addition to the allowance provided by the other sections of this Act an amount equal to the number of those pupils in attendance times one-half the tuition rate as computed under Section III and under 1401 of the school code of 1976.[13]

This section of the Michigan School Code provides "additional allowance to districts, not receiving specifically designated federal aid, for resident American Indian pupils attending the districts schools." The states of Minnesota and New York also have state-supported programs that provide both types of assistance. Indeed, Minnesota has the most comprehensive program.

Some state legislatures, however, appropriate special funds for only one area. For example, Florida provides higher education funds for resident American Indians while leaving the basic support for local educational agencies primarily to the federal government or to the regular state finance plan. In California, there are two state-funded programs to meet the specific needs of American Indian students.

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[12] State of Michigan. Compiled Laws Anotated, 1978, p. 128.

[13] Ibid., p. 33.

> In 1974, Senate Bill 2264 authorized the establishment of ten California Indian Education Centers to provide educational programs for American Indian adults and students enrolled in public schools. Subsequent legislation in 1976 removed the limitation of ten centers. Currently, there are 12 California Indian Education Centers representing almost every geographical location in the state.[14]

In addition,

> . . . the Native American Indian Early Childhood Education Program, AB 1544/75, originally enacted as Senate Bill 1258 ... funds ten rural equalizaton and school districts having ten percent or more Indian students enrolled in grades K-4 to establish programs for raising the academic achievement of Indian students. Currently, 23 schools in those ten districts are participaing in this program utilizing a variety of instructional approaches.[15]

Representatives of the remaining 16 SEAs reported that their states provided minimal support for American Indian education where the federal government had not already assumed the full responsibility. In these cases, each state administered its own school finance plan, usually some form of "foundation plan" or "equalization plan," that provided state financial resources to Local Educational Agencies. The amount that each LEA received from the state was based in part on average daily student attendance. The states allowed the LEAs to count enrolled American Indian students in their average daily attendance, regardless of the place or tax-status of their residence. This means that, at a minimum, each LEA received for each enrolled American Indian student the same amount of state resources that it received for any other student. However, this "state formula contribution" is never the full amount judged necessary for a sound educational program; it is always assumed this will involve a "local contribution" made toward the expense of an individual's education. Thus, where there is a very low local tax base (e.g., where reservation lands comprise much of the district), there will be a low "local contribution," and the "state formula contribution," which is considered to be minimal by definition, constitutes a (perhaps the) major source of revenue.

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[14] American Indian Education Study Group. American Indian Education in California. Sacramento, California, 1981,pp. 1-2.

[15] Ibid., p. 2.

Finally, discussions with the SEA representatives attempted to elicit the general attitude of the SEAs toward American Indian education. Respondents were asked whether their SEAs had assumed a formal role in the administration of Indian Education Act programs beyond the federal mandate that they assure the Indian student count provided by each school requesting Part A funds and providing formal assurance of maintenance of local effort. Fifty-six percent of the SEAs surveyed described a variety of services that they provided to LEAs in support of Indian Education Act programs. Nine of the 14 SEAs involved in this type of service reported they conducted or took part in regularly planned technical assistance conferences for Indian Education Act grantees. Four of the SEAs had developed special training programs in the areas of curriculum development and parent committee training. Each of these fourteen SEAs perceived its role as a function of its fundamental responsibility to provide essential educational services to all state citizens.

In response to more direct questioning regarding the SEAs' attitude toward Indian education, 68 percent, or 17 of the 25 SEA representatives, responded positively to the general concept of the states having a special responsibility for the education of American Indians. The eight SEA representatives who did not respond in a fully positive manner declared that they did not perceive American Indians as being different and, consequently, they would not treat them differently. In general, the stated policy of these SEAs was to not consciously deprive any individual of the minimal educational opportunity provided to all citizens.

Legal and Political Issues Associated with Increasing SEA Involvement in American Indian Education

The subject of this section is an examination of the possibility, or feasibility, of having the states assume the administration of the Part A Program, which is currently administered by the federal government. This topic may be viewed from at least three perspectives: that of American Indians, that of the SEAs, and that of LEAs.

- The American Indian Perspective

  American Indians have long perceived the federal government as having the ultimate responsibility for their education. This results from the general recognition that American Indian education is a part of the trust responsibility of the federal government to American Indians. For example, the Snyder Act of 1921 instructed the Secretary of the Interior "to direct, supervise, and expend such monies as Congress may from time to time appropriate for the benefit, care and assistance of Indians throughout the United States." The express purposes for which funding could be provided included "general support and civilization, including education."[16] In Seminole Nation v. United States 316 U.S. 386 (1942), the Supreme Court gave a very explicit reason for the federal government to participate actively in American Indian education. In this case, the U.S. Supreme Court stated that, "under a humane and self-imposed policy which has found expression in many Acts of Congress and numerous decisions of this court, it [the Government] has charged itself with moral obligations of the highest responsibilities and trust. Its conduct, as disclosed in the acts of those who represent it in dealings with Indians, should therefore be judged by the most exacting fiduciary standards."[17] This reasoning contributes to the resistance that American Indians have expressed about the transfer of Indian education to the states.

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[16] 42 Stat. 208.

[17] Seminole Nation v. United States, 316 U.S. 286, 296-97 (1942).

Historically, Indians have held that their legal relationship is with the federal government and not with the states. This unique relationship derived from the numerous treaties and federal statutes that evolved into the federal-Indian trust relationship. Many of the "protection clauses" found in federal-Indian treaties were generated, in fact, in response to state encroachments on American Indian treaty rights. Because of this experience, there is little question in the minds of most Indian leaders that states will not consider themselves legally able to interact with American Indian Nations in a "most exacting fiduciary" manner.[18] From the perspective of the American Indian, most states have not chosen to do this in the past, and there is no reason to believe they would do so today.

- The State Education Agency Perspective

"Notwithstanding various programs of federal aid, the states clearly control elementary, secondary, and post-secondary public education."[19] The U.S. Supreme Court, in numerous decisions, has held that it is a legal and constitutional right for education to be directed by the state.

Results of the discussions held with the 25 selected SEA representatives indicated that 88 percent of the SEAs felt confident that they had the capabilities to assume the administration of all federal educational programs intended specifically for American Indians. Moreover, the SEAs felt they could administer these in a more efficient manner than the federal government, given equal financial resources. Several felt that they were already doing more than the responsible federal agency. Comments by the majority of SEAs indicated that the states have been anticipating, with some eagerness, the time that they would be provided federal legislative authority to assume the administrative responsibility for federally-funded education programs for American Indians. It is important to note, however, that each assertion of ability and desire to administer the federal programs was accompanied by a clear statement of the need for federal financial assistance to carry this out.

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[18] Education Committee of the States, pp. 44-52.

[19] Ibid., p. 15.

An analysis of the legislative provisions for American Indian education currently in effect in various states makes two things clear. First, the states that have come forward with formal American Indian education provisions have addressed the same educational issues that the major federal statutes have addressed: the special education needs of American Indians and the need to perpetuate the cultural identity of the people involved. This compatibility of the existing federal and state policies and statutes relative to American Indian education could work in favor of a transfer of administrative authority from the federal government to the state governments.

On the other hand, the policy of the states to treat all citizens equally inhibits them from adopting an administrative function that treats any individual group of people in a fiduciary manner. When SEA representatives were asked whether the state would assume this type of a relationship with American Indians, their responses were either non-committal or negative. Although states are ready to assume the administration of federal Indian Education programs, they cannot assume the trustee relationship of the federal government that is an inherent part of these programs.

- The Local Education Agency Perspective

Local Educational Agencies, or local school districts, are the implementors of the state constitutional provisions relative to public education. The legal policy making body for these local entities are the publicly elected school boards.

During the spring of 1982, Part A project directors and district administrators who were knowledgeable about the operations of the local Part A projects in 115 school districts were asked whether they had received any assistance from their SEAs over the past year, what kind of assistance they had received, and how satisfied they were with this assistance. Only 21 percent of the district administrators and 37 percent of the project directors reported that their projects had received SEA assistance.[20] As shown in Table 4, those district administrators who reported receiving assistance indicated that a variety of different types of assistance had been provided, the most common (37%) of which was general information. When asked how satisfied they were with the assistance, 58 percent of the district administrators and 65 percent of the project directors who reported receiving assistance said that they were very satisfied, as shown in Table 5.

Project directors were also asked to comment on whether they felt the SEAs should play a role in the Part A Program, and if so why. Nearly half (47%) of all project directors stated that the SEAs should play a role in some areas of the Program, and slightly over one-third (35%) said that the SEA should not have a role in Part A. Only 18 percent felt that the SEA should play a role in most areas of the Program. From the project directors indicating that the SEAs should play a role in the Part A Program, the most frequently cited reasons were that the SEAs had provided good technical assistance (25%) and helpful workshops and seminars (14%), that the SEA would know more about local LEAs than would the federal government (13%), and that the SEAs, as a result of their involvement in other local LEA programs, could provide better coordination of programs (17%). The most frequently given reasons of the one-third who indicated that the SEA should not play a role in Part A were: the SEAs have too little staff or are too far removed to do the job (27%), everything should be done at the local level (21%), SEAs involvement would increase the paperwork and red tape (21%), or there was no real need for SEA assistance (16%).

This information indicates that the relatively few school districts which receive assistance from their SEAs with respect Indian education are satisfied with that assistance. Furthermore, although only a small percentage have received such assistance, a majority of the LEAs receiving Part A funds are in favor of some (47%) or a large (18%) SEA role in the Part A Program.

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[20] The difference in the percentage of district administrators reporting assistance and that of project directors reporting assistance is likely due to the greater knowledge of project operations of the latter.

TABLE 4

SEA ASSISTANCE TO PART A PROJECTS REPORTED BY LEA ADMINISTRATORS

(N=76)

General information	37%
Technical assistance and inservice	17%
Workshops	16%
Clarification of rules and regulations, guidelines	14%
Assistance with budgeting	3%
Assistance in writing budgeting	3%
Assistance in writing Part A application	3%
Program review/evaluation	3%
Onsite visit	2%
Other assistance	5%

Notes:

1. Respondents were assistant superintendents, Federal program coordinators, or superintendents who were knowledgeable about the Part A project.
2. The number of individuals responding with a particular answer cannot be directly computed from the percentages supplied, since certain data were weighted more heavily than others to make the findings from this sample statistically representative of all projects.
3. The 35 administrators reporting no contact with the SEAs were excluded from these calculations.

TABLE 5

SATISFACTION OF LEA ADMINISTRATORS AND PROJECT DIRECTORS WITH SEA ASSISTANCE

Level of Satisfaction	LEA Administrators (N=24)	Project Directors (N=99)
Not satisfied	3%	0%
Slightly satisfied	2%	3%
Moderately satisfied	37%	31%
Very satisfied	58%	65%

Notes:

1. LEA administrators were assistant superintendents, federal program coordinators, or superintendents who were knowledgeable about the Part A project.
2. The number of individuals responding with a particular type of answer cannot be directly computed from the percentages supplied above, since certain data were weighted more heavily than others to make the findings from this sample statistically representative of all projects.
3. The 15 project directors and 87 administrators reporting no contact with their LEAs were excluded from this table.

Summary of the Past and Present Roles of the States In American Indian Education

One result of the Indian Citizenship Act of 1924 was that states became responsible for providing the same opportunities for a public education to Indians as was required for other resident citizens by provisions of their state constitutions. Many states have reacted in a positive way to carrying out this responsibility. This is illustrated by the fact that the majority of the 25 states examined in this substudy reported having state legislation (48%) and/or formal policy (64%) relating to the education of resident Indians, and a separate unit within the SEA for the administration of Indian education programs (56%). In addition, a majority of the states reported that there was, at a minimum, an "Indian desk" within the SEAs (18 states). Only nine of the states, however, indicated that their legislatures appropriated funds specifically targeted for Indian education.

Concerning the issue of whether or not states should play a greater role in the education of resident Indians, there was disagreement among the different parties contacted. The majority of SEA representatives (88%) felt that their states could administer Indian education better than the federal government, but that their states expressed, at best, a reluctance to accept the concommitant trust responsibility. Additionally, although the majority of SEA representatives indicate their states' willingness to take over the administration of Indian education, they also point out that this could not be done without financial assistance from the federal government. While the majority of local Title IV, Part A project directors felt that the SEAs should play some (47%) to a large (18%) role in the administration of the Part A Program, over a third (35%) expressed opposition a role for the SEAs. Similarly, the views of the Indian community are mixed, based on their different experiences with state governments. Many Indian leaders consider the federal government to have the primary legal responsibility for Indian education and are skeptical of the states' ability and interest in increasing the state role. While Indian leaders acknowledge that states differ, it is this variation which leads many to conclude that a strong federal role in the Indian Education Act programs should be maintained.

APPENDIX 5: AN ANALYSIS OF FEDERAL FUNDS AND SERVICES FOR INDIAN STUDENTS IN PUBLIC SCHOOLS

Introduction

Many federal education programs serve Indian students, including Part A of the Indian Education Act, ESEA Title I for the disadvantaged, Johnson O'Malley, P.L. 94-142 for the handicapped, ESEA Title VII (Bilingual Education), and vocational education. The issue of overall funding for Indian children has interested both Congress and the Department of Education for some time. The House Appropriations Committee, in particular, has frequently asked for the total funding affecting Indian students. Both the House and Senate Appropriations Committees have also requested information on the types of services provided to Indian students through federal education programs, on average per Indian pupil expenditures, and on the overlap of services between programs.

This report provides information regarding the funding and the supplemental educational services reaching Indian children through various federal education programs.[1] More specifically, it addresses the following questions concerning the amount of funding and types of activities serving Indian public school students through supplemental federal education programs:

1. What major federal education programs provide supplemental educational services to Indian students; how many school districts participate in these programs and how many Indian students are served?
2. What types of supplemental educational services are provided to Indian students through major federal education programs?

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[1] This substudy of federal education programs serving Indians was conducted as a component of a comprehensive evaluation of the impact of the Part A Program of the Indian Education Act, for the U.S. Department of Education. The principal component of the evaluation was a study of a sample of 115 projects located throughout the United States, representing Part A grantees. Data were collected during the fall and spring visits, using a variety of quantitative and qualitative procedures.

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3. How do the services provided to Indian students through federal programs differ when school districts receiving Part A funds are compared with districts not receiving Part A funds?

4. How much in federal funds are used to provide supplemental educational services for Indian students?

The data for this report were collected through surveys of a sample of public school districts which are eligible to apply for Part A funds. The eligibility criteria for the Part A Program are broad so that almost all Indian public school students attend schools in districts eligible to receive Part A funds.[2] Thus, the districts included in the survey sample for this study represent most public schools districts with Indian students. The methodology, sampling procedures, and the content of the survey instrument are discussed in the next section. The results and discussion are presented in the third section. The fourth section of this Appendix includes a summary of the empirical findings. The final section presents conclusions addressing the issues of the overlap of services between federal education programs serving Indians and the effects on services and educational funding for Indian students if the Part A Program were eliminated.

Method

The information presented in this report is based upon interview and questionnaire data obtained during the spring of 1982 from school administrators[3] in districts eligible for, but not receiving, Part A funds and in eligible districts receiving Part A funds. Each administrator was asked to name all federal programs providing supplemental services to Indian students in grades K-12. The administrator was then asked to provide the following information about each program named:

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[2] Technically, every public school district that has ten or more Indian students, or in which at least half of the total enrollment is Indian, or which is a local educational agency in Alaska, California, or Oklahoma with Indian or Native children enrolled, or which is on or near an Indian reservation is entitled to Part A funds, provided it submits an acceptable application to the Department of Education. Tribal schools which receive Part A grants and Indian-controlled schools, which may receive Part A discretionary grants, are not included in this study.

[3] The respondents were the administrator or administrators most knowledgeable of the supplemental educational programs within the district; they were typically superintendents, federal program coordinators, or administrators in charge of specific programs areas. Only one survey form was filled out per district, but more than one person was interviewed or asked to fill out parts of the survey when the information was not available from one source.

- Number of Indian students served;
- Total number of students served;
- Amount of federal funds expended for the program during the 1981-82 school year; and
- Types of activities supported through the program.

Data were collected from four samples of Part A-eligible school districts:

- Sample 1 included 115 Part A-funded districts which were visited in the fall and spring of the 1981-82 school year as part of the national impact evaluation of the Part A Program. These districts were selected from a universe of 865 school districts which had been funded continuously by the Part A Program for three consecutive school years and which had at least 30 eligible Indian students.
- Sample 2 included five districts randomly selected from a universe of 81 districts which had received Part A funds during the 1979-80 and 1980-81 school years, but not during the 1981-82 school year.
- Sample 3 included a random sample of three districts selected from a universe of 52 districts with Part A projects with fewer than 30 Indian students.
- Sample 4 included a sample of 100 districts selected from a universe of 2,179 districts which were eligible for Part A funds, but which did not meet the criteria for any of the previous three samples. Sample 4 thus included districts not funded by Part A during the 1981-82 school year, but which may have been funded in one or more previous years (excluding Sample 3 districts); districts which had been funded during the 1981-82 school year, but not during the previous school year; and districts which had never received Part A funds. It was subsequently discovered that a sizable proportion of the 2,179 districts in the Sample 4 universe had no Indian students. The number of these districts without Indian students was estimated to be 449. The estimated number of districts in the universe for Sample 4 was therefore readjusted to 1,730.

The districts in Samples 1 and 4 were selected using a stratified random sampling procedure based upon the size of Indian student enrollments; in samples 2 and 3 a simple random sample was used. Administrators in the last three samples were contacted by telephone and asked to answer a series of questions in the areas described earlier; those in Sample 1 filled out self-administered questionnaires.

The data for each project were weighted by the reciprocal of the project's probability of selection. Thus, a school district picked from a strata of twenty districts received a weight of twenty and the results from this district were multiplied by a factor of twenty. The results from this project, in effect, "represent" all twenty projects for the purpose of making national-level estimates representative of all Part A-eligible districts. Weighted data are presented throughout this report.

The study findings which are presented combine the results from all four samples for two groups of districts: 89 districts out of an estimated universe of 1,632 districts which were eligible for but did not receive Part A funds and 134 districts out of an estimated universe of 1,096 districts receiving Part A funds. The Part A-funded group includes 115 districts for Sample 1; one district from Sample 2 and 15 districts for Sample 4 which were found to have received Part A funds during the 1981-82 school year; and the three Sample 3 Part A-funded districts. The Part A-eligible, non-funded group is comprised of the four remaining districts in Sample 2 and the 85 districts remaining from Sample 4. In summary, 223 of the estimated 2,720 public school districts eligible to receive Part A funds were surveyed.

Results and Discussion

The findings in this section are presented according to the study questions discussed in the introduction. The first subsection provides a summary description of the major federally-supported education programs serving Indian children, the numbers of Indian students served and the proportion of Part A-eligible school districts served by each program. The second subsection examines the types of supplementary educational services provided to Indian students through federal educational programs. The third subsection analyzes how services provided to Indian students differ between school districts receiving Part A funds and those not funded by Part A. The final subsection describes the amount of federal funding directed toward Indian students through these programs.

1. What federal education programs serve Indian students?

In 1982, most of the supplemental educational services provided to Indian students through federal funds were provided through six programs or program areas:

Part A of the Indian Education Act: This program, administered by the Department of Education, provides funds to school districts to support services addressing the "special educational or culturally related academic needs" of Indian students. These services may include, but are not limited to, remedial instruction, cultural instruction and activities, home-school liaison, counseling, and activities to encourage regular school attendance.

Johnson O'Malley: This program, administered by the Bureau of Indian Affairs (Department of the Interior), provides grants to school districts, tribal organizations, or states to meet special educationally related needs of Indian students. The focus is similar to Part A, but school districts with Indian students which are located on or near reservations are given priority when funds are awarded. Indian student eligibility requirements for Johnson O'Malley are more restrictive than Part A; students eligible to participate in Johnson O'Malley must be at least one-quarter blood Indian from a federally-recognized tribe.

ESEA Title I: This program, administered by the Department of Education, provides financial assistance to school districts serving areas with concentrations of students from low income families. The funds are used primarily to improve instructional programs in "basic skills" areas, such as reading and mathematics. This program has recently been reauthorized as "Chapter 1," but still operated as "Title I" during the 1981-82 school year. An estimated 72 percent of the children served by Title I during the 1979-80 school year were in grades 1-6.[4]

Vocational Education: Vocational education activities, administered by the Department of Education, are supported by the federal government through programs authorized by the Vocational Education, Adult Education, and Career Education Incentive Acts. Nearly all students served through federal vocation funding are secondary school students.

Education for the Handicapped: Federal financial assistance supporting education for the handicapped, administered by the Department of Education, is provided primarily through the Education for All Handicapped Act (P.L. 94-142). Through this program, each state is entitled to a specific amount of funding based upon the number of handicapped children receiving special education services within the state.

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[4] An Evaluation of ESEA Title I--Program Operations and Educational Effects, A Report to Congress, March 1982, page III-10, U.S. Department of Education, Office of Planning, Budget and Evaluation, Washington, DC.

ESEA Title VII Bilingual Education: This program, administered by the Department of Education, provides financial assistance to school districts to carry out programs to meet the special educational needs of students with limited English speaking ability.

Survey findings from the National Center for Education Statistics indicate that nearly all (93%) of the nation's public school districts participated in at least one major federal education program.[5] The Part A-eligible districts are similar: nearly all (97%) had participated in at least one federal education program in addition to Part A. Part A-eligible districts participated in a mean of 2.6 federal programs each. Most (92%) Part A-eligible districts participated in Title I, two-thirds participated in vocational (68%) and education for the handicapped (64%) programs, one-third (40%) participated in Part A, one-fifth (19%) in the Johnson O'Malley program and 11% in the Title VII Bilingual Education Program.

Estimates of the total numbers of Indian students served by these major federal education programs, as well as the average number and proportion served in school districts participating in each program, are presented in Tables 1 and 2. These estimates are based upon figures obtained from districts in the survey regarding the actual or estimated number of students participating in each federal program. These results show that the Part A and the Johnson O'Malley Programs, both broadly targeted toward addressing the special educational needs of all Indian students, served the largest total numbers of Indian students of any major federal education program and also serve the highest average number and proportion of Indian students in districts with the programs. The Title I program, designed to improve basic skills instruction for low income children, serves the next highest total number and the next highest average number and proportion of Indian students in districts with the program. The vocational education, education for the handicapped, and bilingual education programs, which are more narrowly targeted

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[5] School Districts Participating in Multiple Federal Programs, Winter 1978-79, National Center for Education Statistics, FRSS Report No. 7.

TABLE 1

ESTIMATED NUMBER OF INDIAN PUBLIC SCHOOL CHILDREN SERVED BY FEDERAL EDUCATION PROGRAMS DURING THE 1981-1982 SCHOOL YEAR IN PART A-ELIGIBLE SCHOOL DISTRICTS

Federal Program	Estimated Number of Indian Students Served By Program*	Estimated Percentage of All Indian Public School Students Served by Program**
Part A	228,000	53-70%
Johnson O'Malley	108,000	25-33
Title I	84,000	20-26
Vocational Education	58,000	13-18
Education for the Handicapped	22,000	5-7
Title VII Bilingual Education	24,000	6-8

*These data are weighted estimates based upon the number of Indian public school students reported to be served by each program in a survey of 223 of an estimated 2,728 school districts eligible to receive Part A funds.

**The estimated range of the percentage of Indian children served by each program was calculated by dividing the estimated number of Indian students served by each program in the public schools by the low (326,000, Office of Civil Rights 1980 adjusted Indian enrollment) and high (430,000, 1980 Census Bureau estimate for ages five to 17 from Indian race sample) estimates of the number of Indian students in grades K-12 attending public schools. The estimates of the number of Indian students attending public schools are from Appendix D of the Revised Report of the Definition of Indian, U.S. Dept. of Education, September 30, 1982, page D-9 and D-10.

TABLE 2

AVERAGE NUMBER AND PERCENTAGE OF INDIAN PUBLIC SCHOOL STUDENTS SERVED BY FEDERAL PROGRAMS DURING THE 1981-1982 SCHOOL YEAR IN PART A ELIGIBLE SCHOOL DISTRICTS*

Federal Program	Average (Mean) Number of All Indian Students in Districts Served by Program	Average (Mean) Percent of All Indian Students in Districts Served by Program
Part A	204	82%
Johnson O'Malley	185	66
Title I	34	38
Vocational Education	31	30
Education for the Handicapped	12	16
Title VII Bilingual Education	78	**

* These data are weighted estimates based upon a survey of 223 of an estimated 2728 school districts eligible for Part A funding during FY 81.

**An estimate was not made of the mean percentage of Indian students served by the Title VII program in participating districts because only a small proportion of districts participated in Title VII and the proportions of Indian students served by Title VII in districts with small Indian enrollments (e.g., 3 Indian students served out of 4 enrolled in the district) inflated the overall mean percentage.

toward students with specific educational needs, served smaller total numbers of all Indian public school students and served smaller average numbers and proportions of Indian students within participating districts.

These and other estimates concerning the numbers of Indian students participating in federal programs should be interpreted with caution. First, many school districts do not keep accurate records concerning the number of Indian children participating in federal programs, since counts of program participants by ethnic or racial group are not required. Second, the definition of which and how many children are Indian is unclear; estimates concerning the total number of Indian children attending school in grades K-12 in 1980, the most recent year estimates available, vary widely from 326,000 to 429,000.[6] The study from which these figures are quoted concluded, "We see no solution to the problem of how to impart stability and uniform meaning to the numbers of students locally counted for participation in the Part A program. As members of various Indian communities have pointed out repeatedly, the term Indian has no singular meaning."[7]

Estimates of the percentage of all Indian students served by major federal programs, also shown in Table 1, were calculated by dividing the estimated total number of Indian students enrolled in the public schools in grades K-12, cited above, by the estimated number of children served by each program. Since estimates of the total number of Indians enrolled in school vary, a range was calculated of the estimated percent of Indian children served. The most broadly targeted program, Part A, is estimated to reach well over half of all Indian children enrolled in the public schools. The Johnson O'Malley program, which is designed to meet special educational needs of Indian children on or near reservations and, therefore, serves fewer districts than Part A, is estimated to serve a fourth to a third of Indian public school students. Title I, which serves low income children, reached an estimated 20% to 26 percent of Indian public school students, and education for the handicapped an estimated 5 percent to 7 percent. National surveys conducted by the National Center for Education Statistics indicate that of all public school students, 11.6 percent are served by Title I[8] and 2.3 percent by P. L. 94-142, the principal federal program serving the handicapped.[9] (National participation rates were not available for the other federal programs.) Thus, the estimated proportions of Indian public school students served by Title I and education for the handicapped programs were higher than the overall proportions of public school students served.

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[6] Revised Report on the Definition of Indian, U.S. Department of Education, September, 30, 1982, page 47.

[7] Ibid., page 61.

Vocational education served an estimated 13 percent to 18 percent of all Indian public school students. Since vocational education is primarily directed toward secondary students, the proportion of Indian high school students participating in federally supported vocational courses is probably considerably higher. Title VII (Bilingual Education) served an estimated 6 percent to 8 percent of all Indian public school students. However, most of the Indian students served by Title VII are probably from a small number of tribes, such as the Navajo, where English is not the primary language used in the home.

In summary, major federal education programs are widely available to and extensively used by Indian students. Title I (92%), vocational education (68%), and education for the handicapped (64%) programs were available in a majority of districts. The Part A and/or the Johnson O'Malley programs were prevalent in most districts with concentrations of Indian students. A majority of Indian public school students were served by Part A and a sizable minority were also served by Johnson O'Malley (25-33%), Title I (20-26%), and vocational education (13-18%). A higher proportion of Indian public school students were served by Title I and education for the handicapped programs than was the case for all public school students.

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[8] An Evaluation of ESEA Title I--Program Operations and Educational Effects, A Report to Congress, March 1982, page III-13, U.S. Department of Education, Office of Planning, Budget and Evaluation, Washington, DC.

[9] School Districts Participating in Multiple Federal Programs, Winter 1978-79, National Center for Education Statistics, FRSS Report No. 7.

2. What types of supplemental education services are provided to Indian students through major federal education programs?

In this section, a description is given of the specific services provided to Indian students by each federal program in Part A-eligible districts. This information was gathered by asking senior school administrators which federal programs provided services to Indian students in their districts and what specific services were provided to Indian students through each program.

To analyze the services provided through federal programs, the services were categorized into six broad areas which are intended to capture the range of services provided through these programs. These six areas include:

- Cultural instruction and activities;
- Instruction in basic skills (reading, mathematics, language, arts);
- Instruction in other subject areas (including vocational courses);
- Counseling;
- Activities to improve school attendance rates; and
- Home-school liaison activities (home visits, meetings with parents about school, etc.).

The overall results are summarized in Table 3. The key findings for each federal program are presented below:

1. The Part A Indian Education Program, present in 40 percent of the districts eligible for Part A funds, provided cultural instruction and activities (68%) basic skills instruction (77%), and other instruction (58%), counseling (50%), and activities to promote school attendance (50%) to Indian students in half or more of the districts participating in the program.
2. The Jonnson O'Malley Program served 19 percent of all Part A-eligible districts. Services provided Indian students included instruction in basic skills (47 percent of participating districts), cultural instruction and activities (46%), and home-school coordination (40%).
3. The Title I Program served most districts (92%). Services provided to Indian students focused primarily on instruction in basic skills in all participating districts, although 44 percent of these districts also offered home-school liaison services through Title I.

TABLE 3

SERVICES PROVIDED TO INDIAN CHILDREN THROUGH MAJOR FEDERAL EDUCATION PROGRAMS BY PART A-ELIGIBLE PUBLIC SCHOOL DISTRICTS*

		Percent of Districts Participating in Program Which Offer Activity/Service to Indian Students Through Program					
Program	Percent of Districts Participating in Program	Cultural Instruc. and Activities	Instruction in Basic Skills	Instruction in Other Areas	Counseling	Promote School Attendance	Home-School Liaison
Part A	40%	68%	77%	58%	50%	53%	45%
Johnson O'Malley	19%	46%	47%	29%	31%	29%	40%
Title I	92%	14%	99%	10%	13%	19%	44%
Vocational Education	68%	8%	26%	100%	56%	13%	17%
Education for the Handicapped	64%	33%	92%	77%	77%	48%	73%
Title VII (Bilingual Education)	11%	61%	96%	90%	31%	45%	56%

*These data are weighted estimates based upon a survey of 223 of an estimated 2,728 school districts eligible for Part A funding during FY1981.

4. Vocational education funding was provided to 68 percent of all Part A-eligible districts. All participating districts offered vocational instruction to Indian students, 56 percent of these districts also supported counseling through vocational funding.

5. Education for the handicapped funding was provided to 64 percent of all Part A-eligible districts. Almost all of these districts provided basic skills instruction to Indian students through handicapped funding; in addition, 77 percent supported counseling and 73 percent provided home-school liaison.

6. Eleven percent of the Part A eligible districts received Title VII Bilingual Education funding. The predominant service provided to Indian students through this funding was bilingual instruction in basic skills (96 percent of participating districts) or in other areas (90%). A majority of participating districts also provided cultural instruction or activities (61%) and home-school liaison (55%) to Indian students through Title VII.

In the next section the findings are presented which compare the activities offered through federal programs in school districts which received Part A funds with those that did not.

3. How do the services provided to Indian students through federal programs differ when Part A funded school districts are compared with districts not receiving Part A funds?

Before the presentation of the comparisons of Part A funded school districts with districts not receiving Part A funds, it is important to describe several differences between these two groups of districts. First, as shown in Table 4, Part A-funded districts were located predominantly on or near reservations and in other rural areas, whereas a higher proportion of the non-Part A-funded districts were located in urban or metropolitan areas. Second, Part A districts had a higher proportion (mean=28%) of Indian students in their student bodies than non-Part A-funded districts (mean=5%). These proportions compare with the overall mean of 14 percent. Finally, Part A districts had a mean of 142 Indian students, compared to a mean of only 35 in non-Part A-funded districts. This is consistent with Department of Education estimates

TABLE 4

LOCATION OF PUBLIC SCHOOL DISTRICTS ELIGLBLE FOR PART A FUNDING[a]

	On or Near Reservation (N=407)	Other Rural Area[b] (N=1186)	Urban Non-Metropolitan[c] (N=495)	Metropolitan[d] (N=640)
All districts eligible for Part A funding (N=2728)	14.3%	44%	18%	23%
Part A-funded districts (N=1096)[e]	30%	42%	13%	14%
Non-Part A-funded districts (N=1632)	5%	45%	21%	29%

[a] Data are weighted to make the findings statistically representative of all public school districts eligible for Part A funding. Thus, the numbers of districts listed above are weighted estimates.

[b] Districts located in an area with no town or city over 10,000 in population.

[c] Districts located in area with a town or city with a population between 10,000 and 50,000.

[d] Districts located in a city (or suburb within 20 miles of a city) with a population of 50,000 or more.

[e] The actual number of districts receiving Part A funds during the 1981-82 school year was 1048. The figure of 1,096 districts listed above is based upon a projection from the study sample.

that of all the Indian students enrolled in public school districts eligible for Part A funding, 85 percent attend school in districts with Part A projects.[10]

The results presented in Table 5 show the percentage of participating school districts providing different types of services/activities for Indian students through each federal program, with the results presented overall for each program and then separately for Part A-funded districts and districts not funded by Part A. These results show that, for all programs except Title VII Bilingual Education, a higher proportion of participating districts not funded by Part A offered one or more services through each federal program than districts receiving Part A funds. The more specific results for each program are summarized below:

- Title I: More (57%) districts participating in Title I that were not funded by Part A provided home-school liaison through Title I than Title IV, Part A-funded districts (44%).
- Johnson O'Malley: More (73%) districts participating in Johnson O'Malley that were not funded by Part A provided cultural instruction through Johnson O'Malley than Part A-funded districts (38%).
- Vocational Education: More (63%) districts participating in vocational education that were not funded by Part A provided counseling through federal vocational funding than Part A-funded districts (39%).
- Education for the Handicapped: More districts receiving federal handicapped funding that were not funded by Part A provided counseling (87% vs. 55% for Part A funded districts); activities to promote school attendance (60% vs. 25%); and home-school liaison (85% vs. 40%) through federal education for the handicapped funding than Part A-funded districts.

These results provide some indirect evidence that school districts have coordinated services between Part A and other federal programs so that overlap and duplicaton of services is avoided; more participating districts without

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[10] Justification for Appropriation Estimates for Committees on Appropriations, Fiscal Year 1981, Indian Education, Department of Education, page 16.

TABLE 5

ACTIVITIES OF FEDERAL EDUCATION PROGRAMS IN PART A ELIGIBLE PUBLIC SCHOOL DISTRICTS[1]

PERCENT OF DISTRICTS WITH ACTIVITIES SERVING INDIAN STUDENTS

ACTIVITY	Title 1			Johnson O'Malley			Vocational Education			Educ. for the Handicap.			Title VII Bilingual Education		
	All Part A Eligible Districts	Part A Funded Districts	Districts Not Funded by Part A	All Part A Eligible Districts	Part A Funded Districts	Districts Not Funded by Part A	All Part A Eligible Districts	Part A Funded Districts	Districts Not Funded by Part A	All Part A Eligible Districts	Part A Funded Districts	Districts Not Funded by Part A	All Part A Eligible Districts	Part A Funded Districts	Districts Not Funded by Part A
Cultural Instruction or Activities	14%	19%	17%	46%	38%	73%	8%	2%	10%	33%	17%	43%	61%	64%	58%
Instruction in Basic Skills	99	99	100	47	48	43	26	16	30	92	78	99	96	89	100
Instruction in Other Subject Areas	10	14	8	29	29	27	100	100	100	77	66	83	90	77	99
Counseling	13	9	16	31	28	38	56	39	63	77	55	87	31	40	26
Activities to Promote School Attendance	19	11	23	29	26	38	13	6	16	48	25	60	45	51	41
Home-School Liaison	44	18	57	40	39	43	17	6	21	73	46	85	56	52	58

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[1] Data are weighted to make the findings statistically representative of all Part A eligible school districts.

Part A funds offered specific services through other federal programs than districts receiving Part A funds. For example, cultural instruction is an area of potential duplication between the Part A and Johnson O'Malley Programs, since such instruction may be offered through both programs to the same group of Indian children within a district. However, the results show that districts funded by Part A are much less likely to offer cultural instruction through Johnson O'Malley than districts not funded by Part A.

4. How much federal funding is used to provide supplemental educational services for Indian students?

An estimated $205 million of funds from six major federal educational programs or program areas were used to provide supplemental educational services for Indian public school students during the 1981-82 school year (see Table 6). Slightly over one-third (35%) of these funds (an estimated $72 million) were from the Part A and Johnson O'Malley programs, which are broadly targeted toward all Indian students in eligible school districts to meet special educational needs. About one-fourth (29%) of these funds (an estimated $59 million) were directed toward improving basic skills instruction for disadvantaged Indian students through Title I; 16 percent (an estimated $33 million) were used to provide educational services for Indian students with educationally handicapping conditions through federal education for the handicapped programs; 14 percent (an estimated $28 million) were used for vocational education for Indian students, and 6 percent (an estimated $13 million) were used for bilingual educational activities for Indian students.

Mean per-student expenditures for each program were calculated to provide some indication as to the amount of services received by students participating in the program. These results are also shown in Table 6. The mean per-student expenditure was calculated by dividing the estimated total amount of funding for a program by the estimated number of students served by the program. The education for the handicapped program area was estimated to have spent the highest amount per Indian student served (mean=$1,500), which perhaps reflects the high cost of delivering educational services to students with various handicaps. The Title I (mean=$702), Title VII Bilingual Education (mean=$542), and vocational education (mean=$483), programs devoted the next highest amounts of funds per Indian student served.

TABLE 6

ESTIMATED FEDERAL EXPENDITURES FOR SUPPLEMENTAL EDUCATIONAL SERVICES PROVIDED TO INDIAN STUDENTS IN PUBLIC SCHOOL DISTRICTS DURING THE 1981-1982 SCHOOL YEAR[a]

Federal Program	Estimated Number of Indian Students Served	Estimated Funds Used for Services Provided to Indian Students[d]	Mean Expenditure per Indian Student Served
Part A	228,000	\$50,517,015[b] (actual)	\$221
Johnson O'Malley	108,000	\$22,000,000[c]	\$204
Title I	84,000	\$59,000,000	\$702
Vocational Education	58,000	\$28,000,000	\$483
Education for the Handicapped	22,000	\$33,000,000	\$1,500
Title VII (Bilingual Education)	24,000	\$13,000,000	\$542

[a] These data are weighted estimates based upon a survey of 223 of an estimated 3728 school districts eligible for Part A funding in the 1981-1982 school year.

[b] The figure reported for the Part A Program is the actual amount reported by the Office of Indian Education to be provided to public school districts through Part A grants, during the 1981-82 school year.

[c] The actual amount of funds spent under the Johnson O'Malley Program during FY 1981-1982 (\$29,460,000) is higher than the amount reported above for public schools because Johnson O'Malley funds are also provided to support preschool programs and to federally-operated Indian schools.

[d] These weighted estimates were calculated by first estimating the amount spent on Indian students in each district for a program [(number of Indian students served by the program/number of all students served by program) X (program budget within each district)]. These district estimates were then each multiplied by the relevant sample weights to make a projection of the total amount of funds spent to provide services to Indian students through each program. The three relevant pieces of data (number of Indian students served, number of all students served, program budget) were not always available because the data were not readily available during the telephone interview in some cases or because districts are not required to keep count of program participants by ethnic/racial background. Weighted estimates were therefore calculated using available data. This weighted figure was then expanded proportionately to compensate for missing data. The percentages of surveyed districts participating in each federal program which provided complete data and on which estimates are based are as follows: Johnson O'Malley (74%), Title I (54%), vocational education (39%), education for the handicapped (46%), and Title VII (48%).

The Part A (mean=$221), and Johnson O'Malley (mean=$204) Programs, targeted broadly toward all eligible Indian students, spent the least amounts per Indian student served. By contrast, the other programs studied spent more for each Indian student served. However, those programs served far fewer Indian children. Moreover, the funding for the Part A Program appears to be thinly distributed across the different services provided, since an average of only $221 was spent for each Indian student served and a majority of Part A projects provided some services in each of the six areas discussed earlier except home-school liaison (see Table 3).

Summary

This report investigated the amount of funding and types of activities provided to Indian public school students through supplemental federal education programs. A survey was conducted in 223 of the estimated 2,728 public school districts eligible to receive funds from the Part A Indian Education Program. The key findings are summarized below:

- Part A (40 percent of school districts) and Johnson O'Malley (19%), the two Programs designed specifically to meet the educational needs of Indian students, were present in a minority of Part A-eligible districts, but served a large proportion of all Indian public school students: Part A (53-70%) and Johnson O'Malley (25-33%).
- A majority of school districts provided services to Indian students through Title I (92%), vocational education (68%), education for the handicapped (64%), and a minority through Title VII Bilingual Eduation (11%). These programs served a smaller proportion of all Indian public-school students than did either Part A or Johnson O'Malley. Title I (20-26%); vocation education (13% to 18%); education for the handicapped (5-7%); and Title VII Bilingual Education (6-8%).
- The types of services provided to Indian students through federal education programs were categorized into six areas: cultural instruction, basic skills instruction, other instruction, counseling, activities to promote school attendance, and home-school liaison. The Part A Program supported services in each of these areas except home-school liaison in a majority of Part A-funded districts. Johnson O'Malley funds were used to support cultural instruction and basic skills instruction in nearly half of its participating districts. Title I focused heavily on basic skills instruction, with two-fifths of participating districts also supporting home-school liaison through Title I. Slightly over half of the districts with vocational education programs also provided counseling. Education for

the handicapped funds were used to support services in all areas except cultural instruction and school attendance in participating districts. Districts with Title VII Bilingual Education funding focused on bilingual and cultural instruction.

- A higher proportion of school districts not funded by Part A offered one or more of the investigated services through other federal programs than school districts receiving Part A funds.
- An estimated $205 million in federal funds were used by public school districts to support educational services for Indian students through these programs: Part A ($50 million); Johnson O'Malley ($22 million); Title I ($59 million); vocational education ($28 million); education for the handicapped ($33 million); and Title VII Bilingual Education ($13 million).
- The two programs addressing the special educational needs of Indian students, Part A ($221) and Johnson O'Malley ($204) spent the smallest average amount per Indian student served, whereas the education for the handicapped ($1,500), Title I for the disadvantaged ($702), Title VII Bilingual Education ($542), and vocational education ($483) programs, spent considerably more per Indian student served.

Conclusions

The conclusions in this section address two major policy issues: the overlap of services among federal educational programs serving Indian public school students and the effects on these educational services and funding if the Part A Program were eliminated.

The issue of overlapping services from different federal programs is important, especially given the present concerns with avoiding waste in government spending and keeping federal expenditures at tolerable levels. While it was not possible to collect direct evidence on overlap of programs, several types of indirect evidence suggest that there is no substantial overlap between the services provided to children through the Part A Program and other federal programs. First, only one program, Part A, was estimated to serve more than one half of all Indian public school students. The Title I program, which has the greatest potential for overlap with Part A except for the Johnson O'Malley program, was estimated to serve a quarter or fewer of all Indian public school students. All other programs studied served such a small number of students or districts as to make the potential for overlap relatively modest.

With respect to overlap between the Part A and Johnson O'Malley Programs, a recent GAO study of duplication of services in districts receiving funds from both programs showed that in 25 of 30 school districts visited, services were adequately coordinated between the two programs so that duplication of services was avoided.[11] In ten of these districts, when both programs provided similar services, the services of each program were directed toward different grade levels. In ten other school districts, the program emphasized different services. In the remaining five school districts, the programs were combined so that the district had only one Indian education project. A related point is that fewer than half (42%) of the districts receiving Part A funds also received Johnson O'Malley funds. Moreover, the eligibility criteria for students and school districts are much narrower for the Johnson O'Malley program than for Part A. As a result, the Johnson O'Malley program is available to and serves far fewer Indian students than Part A. In brief, in school districts with both Johnson O'Malley and Part A, the programs were well coordinated and overlap of services was minimal; and large numbers of Indian students who are not served by Johnson O'Malley are served by Part A.

A second major policy issue concerns the effects on the funding and services provided to Indian public school students if the Part A Program were eliminated. An estimated $205 million in federal funds (including Part A funds) were used to provide educational services to Indian students during the 1981-82 school year. If Part A funds had not been available that year, the federal funds directed towards Indian students would have decreased by 24 percent or $50 million. Such a decrease in funding would have a sharp impact on the school districts in rural areas and on or near reservations, which serve the bulk of the Indian students. These districts typically have a poor tax base and are economically depressed, which severely restricts local resources available for education. The practical effect of the elimination of Part A would likely be that a significant number of Indian students would no longer receive certain supplementary educational services (cultural instruction, tutoring, counseling, etc.), since they are not eligible for or served by any other federal education programs providing these services. This is based on the study estimates of students served by the various programs. That is, without Part A, 228,000 students would no longer be served by a program. While the other five programs are estimated to serve 296,000 children, they all are specialized: Title I largely on elementary students, Johnson O'Malley on reservation or nearby locations, vocational education on secondary students, education for the handicapped for handicapped students, and Title VII on the small number of tribes for whom English is not the primary language. Thus, while it is not possible to precisely identify the number of students who would no longer receive services, the above strongly suggest that a large number of the estimated 326,000 to 429,000 Indian students in grades K-12 attending public schools, would be unserved and/or less served by these programs.

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[11] Local Coordination Prevents Duplicaion of Services at Federally Sponsored Indian Education Projects, General Accounting Office, Human Resources Division, Washington, DC., June 15, 1981.